

EAST VANCOUVER PORT LANDS

Area Plan



Approved
May 2007



Approved
April 2007

Burrardview
Community
Association

Approved
February 2007



Mission Statement

“Whereas the Vancouver Port Authority, the businesses occupying or using the East Vancouver Port Lands, the residents of the Burrardview Community, and the City of Vancouver acknowledge the desirability and benefits of being good neighbours, these parties wish to create a plan that balances all parties’ interests, today and for future generations.”

Acknowledgements

This Plan was developed through the combined efforts of the East Vancouver Port Lands Working Group. Past and present members include:

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The Working Group wishes to acknowledge the contributions of the many Burrardview Community members who offered their time and provided support in efforts to find a resolution to the issues addressed in this Plan.

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1. Introduction

1.1 Plan Background

The East Vancouver Port Lands (EVPL) is an active and intensifying industrial area adjacent to a quietly growing residential community. While port operations are an important part of our national and local economies, they can impact residents living next door through noise, truck traffic, air quality and visual aesthetics. Conversely, a residential community in such close proximity to a port can limit operations.

There is a long history of resident concerns over these issues and difficulties experienced by the Port of Vancouver and its tenants in operating industrial uses next to the Burrardview neighbourhood. In 2003, a joint process involving the Burrardview Community Association (BCA), the Vancouver Port Authority (VPA) and the City of Vancouver (City) was launched to develop a plan that would address the concerns of the residential and Port communities, and provide certainty as to how they can grow and co-exist in this unique situation.

1.2 EVPL Plan Vision Statement

This Plan was developed through a new working relationship between the BCA, the VPA and the City, who developed the following shared vision:

The East Vancouver Port Lands will support a thriving port and residential community where:

- The Vancouver Port Authority, Port industries, the City of Vancouver and the community work collaboratively to resolve issues;
- A balance exists between the business interests of the Port and the livability needs of the adjacent residential community; and,
- A range of Port activities exist that meet mutually established planning criteria, and mitigation techniques are employed to minimize the individual and cumulative impacts of Port activities on the adjacent residential community.

1.3 EVPL Context

The EVPL study area includes the Port of Vancouver industrial lands as well as the adjacent portion of the Burrardview residential community, a small industrial area under City jurisdiction, and New Brighton Park (see Figure 1). The EVPL itself (in dark shading in Figures 1 and 2) is under the jurisdiction of the VPA and development here does not require City approval, although City advice is sought by the VPA on all development proposals. The remaining lands are under City jurisdiction and are regulated through City zoning and building requirements.

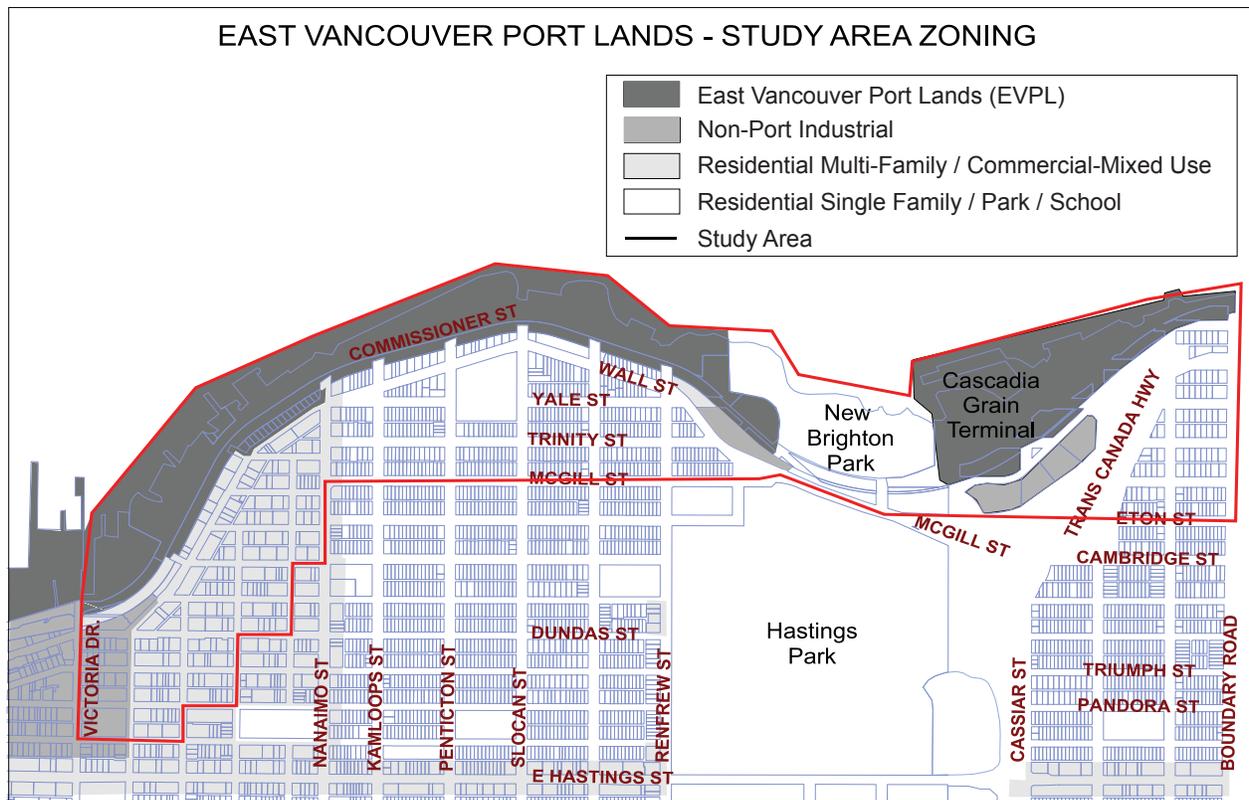


Figure 1: The EVPL Study Area with Zoning

Port and marine businesses in the EVPL include three agricultural products facilities, marine service, a restaurant, container storage, fish processing and a cold storage facility. The area is also an important transportation corridor. The VPA-managed Commissioner Street and the Canadian Pacific Railway (CPR) mainline and storage yard both serve major container terminals and other uses within and west of the EVPL. Most of the industrial lands in the EVPL are federally owned, under the jurisdiction of Transport Canada, and managed by the VPA. In the easternmost portion of the EVPL, lands under City jurisdiction include a small industrial area and most of New Brighton Park (see Figure 2).

Immediately south of the EVPL is Burrardview – an established neighbourhood of single-family homes and multi-family housing at its western end. There are about 5,600 residents and 3,000 residential units within the Plan area boundaries. The community is known for its panoramic views over the Port lands to Burrard Inlet and the North Shore Mountains from residences, parks and street ends.

EAST VANCOUVER PORT LANDS - LAND JURISDICTION

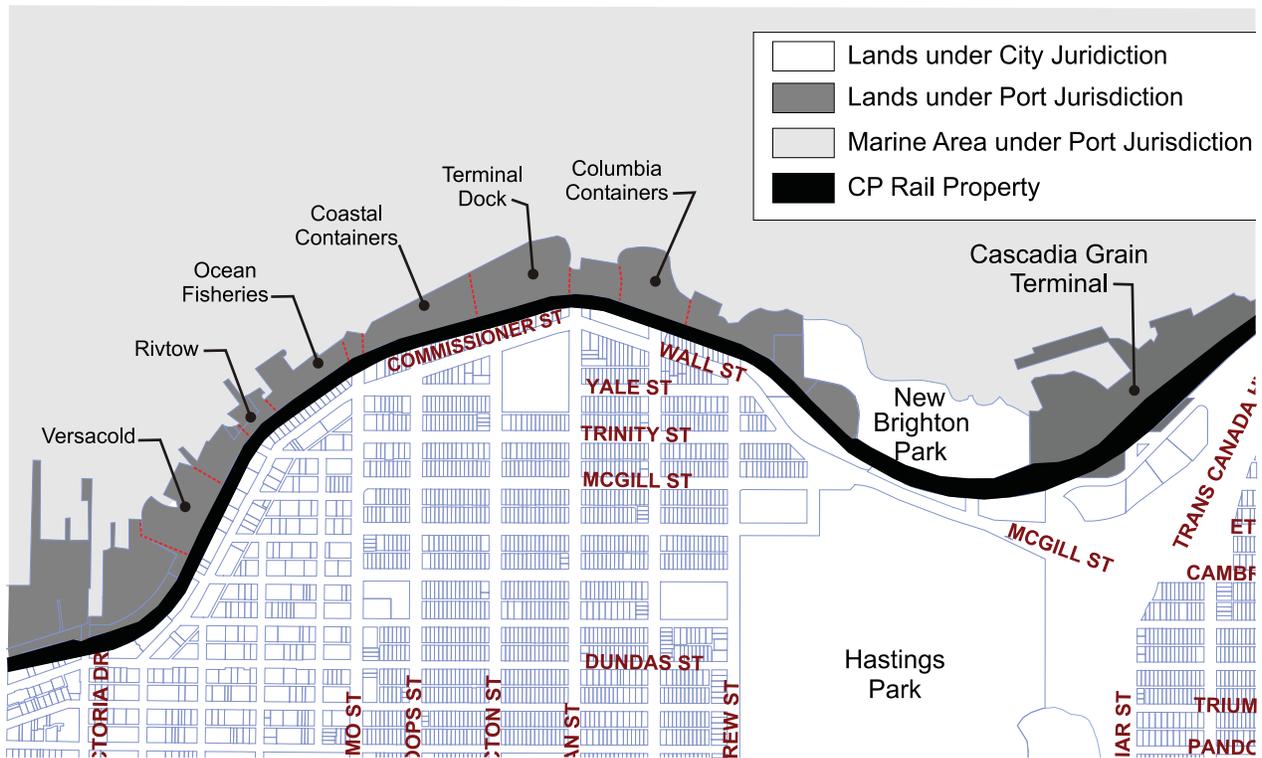


Figure 2: VPA and City of Vancouver Jurisdiction

1.4 Plan Area History

The EVPL is part of the Hastings-Sunrise district, where the city's first neighbourhood was established. In 1863, the area—then called New Brighton—was set aside by the provincial government for development of a town along the Burrard Inlet. Settlement was slow, but tourism made New Brighton a popular weekend retreat for residents of the province's then-capital at New Westminster. The New Brighton Hotel, located where Cascadia Wheat Pool and New Brighton Park now exist, opened in 1865, offering a floating wharf and steamer excursions. The area's role as a resort continued until the turn of the century, with leisure-seekers drawn to the hotel (destroyed by fire in 1905) and the race track at Hastings Park, built in 1889.

In 1869, New Brighton's name was changed to Hastings Townsite to commemorate the visit of Admiral George Fowler Hastings, commander of the Royal Navy's Pacific Fleet. As Hastings grew, it laid claim to virtually every first for Vancouver: the first road, first hotel, first post office, first telephone, first real estate transaction, first subdivision, and even the first ferry between Burrard Inlet and Victoria.

Townsite settlement increased steadily with the arrival of the railway in 1885 and the booming growth of the City of Vancouver—then a separate municipality—just a few kilometers west. Small residences owned by local business people were built along Powell Street (which later became Wall Street). Construction of streetcar lines along McGill and Hasting Streets attracted more people to the area, spurring further development that housed working class families. In 1911, Hastings Townsite residents voted 1200 to 1 in favour of joining the City of Vancouver. Industrial development occurred over roughly the same time period, with growth facilitated by the extension of the CPR line in 1887 from Port Moody to Granville. In 1891 the Brighton Sawmill began

operation, followed by shingle mills, machine works and a brewery. In later years, the Matsumoto Shipyards and a yacht club were built at the foot of Renfrew Street. Historical photos taken in the 1920s show these early industrial and residential developments.



Figure 3: Terminal Dock (1910)

Looking east towards the Second Narrows circa 1910. The Brighton Sawmill (bottom left) and a shingle mill (right middle) were early industry in the area. Brighton Beach, a popular swimming location for residents of New Westminster and the New Brighton Hotel (white building), drew people to the waters of Burrard Inlet. Noticeably absent from this picture are the Alberta Wheat Pool (Cascadia) (1927) and the wooden Second Narrows rail/road bridge (1925). Credit: City of Vancouver Archives (photo #CVA 1123-14). Photographer: Stuart Thomson.

1.4.1 Vancouver Port Development

The management authority of the Port of Vancouver has evolved since its establishment over ninety years ago. Established in 1912 as the Vancouver Harbour Commission, authority rested with a Board of three local Harbour Commissioners. In 1936 the Harbour Commission was centralized and replaced by the National Harbour Board, a federally administered port system. The Vancouver Port Authority as it exists today was established in 1999 by the federal government through the Canada Marine Act.

In the early years, industrial activity was concentrated in the eastern harbour. The Terminal Dock and Warehouse was built in 1925 at the foot of Nanaimo Street and operated by Robin Hood Mills as a shipping point for Western Prairie flour mills. The Columbia Grain Elevator (later changed to Elevator No 4) was built in 1925 on Wall Street. The BC Cold Storage (Versacold) facility was built in 1929, and Alberta Wheat Pool began construction in 1927.



Figure 4: Terminal Dock (1926)

Looking northwest from Elevator Number 4 towards Terminal Dock and Robin Hood Flour warehouse. Elevator 4 is present day location of Dusty Greenwall Park. The rail spur at the bottom right of the photo served Elevator Number 4 (present day Columbia Containers). Note Wall Street with its wooden sidewalks and gravel road bed. Credit: City of Vancouver Archives (photo #WatN48). Photographer: W.J. Moore

Connecting roads were built to facilitate Port development. In 1935, a road north of the CP rail line was completed between Victoria Drive and Kaslo Street. In 1962, the Renfrew Street overpass was built and the road along the harbour was completed. This improved accessibility drew fish processing and coastal shipping firms to the area.

The next twenty years saw changes in land use and Port operators. In the 1960s, fill was added at Terminal Dock, extending the land base for Robin Hood Flour operations. In 1968, the Saskatchewan Wheat Pool relocated to North Vancouver; Elevator No 4 was later used as an unloading shed when Columbia Containers began operations on the site in 1972. The land north of the railway became Dusty Greenwall Park as part of a land exchange between the City and the National Harbour Board. In 1984, Terminal Dock burned down after being condemned as unsafe; five years later, the eastern half of this site became storage space for Elders Grain Facility (now Coastal Containers).



Figure 5: Terminal Dock (1970)

The water between the dock and CP rail track was filled to create a storage area for containers. The warehouse and dock were destroyed in a fire in 1984. The warehouses in the middle of the photo are situated where present-day Coastal Containers is located. The Terminal Dock site continues to be used for container storage. Source: Vancouver Port Authority Archives. Photographer: Unknown.

The last 20 years has seen limited investment and development by the Port community in the EVPL. The decline of the shipbuilding and fish processing industries further impacted the area, resulting in 19.4 acres of vacant land and water by 2005. The EVPL is now transitioning into a support area for the deep-sea container terminals located to the west. The area's larger lease lots have attracted container repair/storage and grain transshipment operations.

1.4.2 Residential Development

Beginning as a resort community almost 150 years ago, residential development progressed slowly at first but gained momentum with the opening of the Hastings Street tram line in 1909 and then accelerated again after World War II. By the 1960s, virtually all privately owned land had been developed and Burrardview was a mature and attractive residential community. While primarily a single-family neighbourhood, a sizeable apartment area exists west of Nanaimo Street which includes both older rental buildings and newer condominium apartments. Unique to the neighbourhood are the numerous parks and greenspaces for residents to enjoy, including New Brighton, Burrardview, Dusty Greenwell, and seven street end parks along Wall Street, many of which feature spectacular views of the North Shore.

1.5 Port and Residential Interface Issues: The EVPL Challenge

Land use pressures between the Burrardview residential community and Port development became apparent in the late 1980s. In 1989 Elders Grain (now Coastal Containers) proposed a grain transshipment facility on the western portion of the Terminal Dock site, sparking community concerns about impacts on neighbouring residences, especially loss of views. This project demonstrated the need for a proactive planning process and in 1990 Vancouver City Council and the VPA agreed to jointly develop a detailed plan for the area. This process was delayed due to insufficient planning resources. However, a proposal for a concrete batch plant by Lafarge Canada in 1999 reconfirmed the need for a plan and resulted in the EVPL planning process.

The primary challenge of the EVPL Plan is to address compatibility issues between Port industrial and residential land uses in close proximity. Resident concerns include excessive noise (especially at night), truck traffic, air quality, loss of views, and general visual impacts from operations. Conversely, the VPA and the Port operators are concerned about constraints placed on their industrial operations.

Solutions are challenging given the growth that the Port is experiencing and its limited land base. Terminal operators to the west of the Plan area (Centerm and Vanterm container terminals) and the VPA have invested heavily in their facilities to increase capacity to meet the projected growth in container traffic. With increased container traffic, there will be an increase in rail and truck movement in the EVPL and greater development of supporting operations such as container storage, servicing and transshipment.

On the residential side, Burrardview is an attractive and stable residential neighbourhood close to Downtown. Locations that have views of the North Shore are particularly attractive and many new houses have been built along the escarpment to take advantage of these views. The potential for increasing conflicts needs to be addressed to achieve the common vision of supporting both a thriving Port and a thriving residential community.

1.6 EVPL Plan Objectives

The key EVPL Plan objectives are to:

- Provide more certainty about future lands uses for the VPA and community;
- Establish mechanisms for greater involvement by the three partners in development approvals on both Port land and land under City jurisdiction;
- Establish policies to address compatibility issues – primarily views, noise, and air quality; and
- Establish an on-going collaborative working relationship between the VPA, community, and City to address operational issues.

The EVPL Plan was developed collaboratively by the parties acting in good faith. VPA's intentions to manage current and future operations in the EVPL are consistent with the spirit and intent of the Plan. However, the Plan does not have the effect of altering VPA's legal rights including its authority to make land-use decisions. Similarly, it does not restrict the legal rights of the City or the Burrardview community including their rights to challenge land-use decisions.

2. Land Uses and Development Review

2.1 Introduction

The EVPL study area can be divided into three principal sub-areas by land use and jurisdiction: the EVPL Port industrial area under VPA jurisdiction; a non-Port industrial area zoned I-2 (light industrial) under City jurisdiction south of Cascadia Grain Terminals, and the residential area (see Figure 1). Port industrial land uses are the focus of this Plan and were reviewed to determine the potential uses that would be approvable, approvable with conditions, or not approvable based on their impacts as discussed below in Section 2.4. Other proposed changes highlighted in this section include a process to involve the community in reviewing new development proposals.

2.2 Non-Port Industrial Land Uses

Immediately to the south of Cascadia Grain Terminals and north of McGill Street lies a small area of industrial land zoned I-2 on Bridgeway Street (see Figure 1) under City jurisdiction. The current use is predominately warehousing and there are limited impacts on the residential community or other issues related to the EVPL Plan objectives. The location of these lands— adjacent to the Port, the CPR rail line and McGill Street—supports retention of the current I-2 zoning.

Similarly, the Maple Leaf Storage site at 3001 Wall Street, bordering the CPR mainline, should remain industrial. A rezoning from CD-1 (258) to an appropriate light industrial zoning will be undertaken as part of the Plan implementation.

2.3 Residential Land Uses

Successful co-existence of the residential and Port uses requires both communities to address issues. The ability to influence or mitigate most impacts lies with the VPA and its tenants. However, noise impacts can be reduced at the receiving end by employing various techniques in residential design and construction. Better “acoustical shielding” in new residential construction was noted as an idea in the Hastings-Sunrise Community Vision in 2004. EVPL Plan implementation will include a review of noise mitigation requirements for new residential development in the most affected areas.

2.4 Port Industrial Land Uses

Until 1990, the EVPL was zoned M-2 (heavy industrial), which permitted the complete range of industrial and Port-related uses up to 100 feet (30.5 m) in height. Following the significant view issues with the Elders Grain Terminal development in 1989, the City responded by rezoning the area to reduce outright height to 30 feet (9.1 m) with relaxations to 100 feet, recognizing that the VPA is the approving authority over the lands. Because the CD-1 (258) zoning was to be an interim measure prior to a full review of land uses, all the M-2 industrial uses were transferred into the new zoning.

Potential Port land uses encompass a spectrum of industrial uses, from light to heavy, including warehouses, cranes and loading towers for grain or other products. This Plan has considered this entire spectrum in the context of compatibility with the adjacent residential community. Some uses, such as boat moorage, marine fuelling stations, or storage uses, are unobtrusive and have little impact. Others, such as dry docks, boat repair (noise and air quality issues), and grain processing and transshipment (rail noise, view blockage, and air quality), have potentially high

impacts requiring extensive mitigation to be acceptable. Finally, certain Port uses that might be appropriate in less sensitive areas cannot be mitigated sufficiently to be compatible with adjacent residential uses and hence will not be considered in the EVPL.

To guide future land use decisions, a comprehensive list of potential Port industrial uses was evaluated for impacts and categorized as summarized below and detailed in Appendix A:

- **Outright Approval (Green) Uses** – These uses have few impacts and require little or no mitigation in order to be approved;
- **Conditionally Approvable (Yellow) Uses** – These uses have the potential for higher impacts requiring mitigation to be approvable. Proposals for development with heights that exceed the limits noted in the height guidelines in Section 3 will be reviewed as a Yellow Use; and
- **Non-Approvable (Red) Uses** – These uses have impacts or land requirements that cannot be accommodated in the EVPL.

Uses in the Green category that are consistent with required environmental and building regulations can be approved quickly with little or no external review or consultation. Conditionally approvable uses will require more detailed review and consultation to ensure that impacts are addressed before any approval is granted.

2.5 EVPL Liaison Group

The EVPL Plan process has enabled the community, City, VPA and other stakeholders to cooperatively discuss long-standing issues. Continuation of this partnership through a Liaison Group will be central to the successful implementation of the Plan and to addressing operational and new development issues. Once Vancouver City Council, the VPA Board and the Burrardview Community Association have endorsed the Plan, an EVPL Liaison Group will be formed to provide advice on new development, resolve operational issues and facilitate better communication between the VPA and community on all issues of mutual concern.

2.5.1 EVPL Liaison Group Membership and Role

The Liaison Group will consist of two members of the Burrardview Community Association, one member from the City of Vancouver, one member from the VPA and one member from CP Rail. The Group will meet quarterly or more often if needed to ensure timely and effective communication between stakeholders. The role of the group will be to:

- Ensure the EVPL Plan is implemented and that Plan directions are respected;
- Review and help resolve operational issues that may arise involving the VPA, Port tenants or CP Rail and the community;
- Review and provide advice to the VPA and City on new development proposals that may impact area residents, businesses and the VPA;
- Provide advice on community notification and consultation about operational issues or new development proposals; and
- Provide a communications link to the Burrardview Community Association.

While Liaison Group members will seek to understand the various perspectives put forth on any given issue, consensus is not required. All comments (including minority points of view) will be taken to the appropriate regulatory body (i.e. the VPA or the City), and forwarded through the process (to the Development Permit Board in the City's case, and to the Project Review Committee in the VPA's case).

Liaison Group members must be able to speak for and represent the best interests of their respective organizations, and work cooperatively to achieve the spirit and intent of the Plan. For the Liaison Group meetings to function effectively, representatives should generally be empowered to make decisions and commit to actions on behalf of their organizations.

2.6 Current Development Approval Processes

Under the Canada Marine Act, the Vancouver Port Authority has the authority and responsibility to approve development proposals for land under its management including Port property in the EVPL. Similarly, the Vancouver Charter grants the City of Vancouver authority to approve development applications on any lands located within its municipal boundaries that are not subject to Provincial or Federal jurisdictions. The current review processes used by the VPA and the City are summarized in Appendix D, Section ii. It is recommended that the Liaison Group become an integral part of the existing review process to provide advice on issues and public consultation and to serve as a key communications link to the Burrardview Community.

2.7 Recommended Development Approval Process

Upon adoption of the EVPL Plan by the VPA Board of Directors, the VPA will incorporate the EVPL Plan directions into its project review process for all development applications on EVPL lands.

The development approval process for proposals in the EVPL area will respect this Plan and the existing review processes of the City of Vancouver and the VPA. Following is an outline of the recommended steps for development review with reference to the role of the Liaison Group. These processes are shown diagrammatically in Figures 6 and 7.

(A) PRE-APPLICATION STAGE

As described in Section 2.4, potential land uses on VPA property in the EVPL area have been classified as Green (Outright Approval), Yellow (Conditional Approval), or Red (Non-Approvable) based on potential off-site impacts (see Appendix A). Green uses that exceed the height guidelines shown in Figure 8 will be processed as Yellow uses.

The VPA and the City will assess development proposals in their respective jurisdictions based on a proposal's conformance to Plan policies. If a proposal is supportable, the VPA or the City will notify the Liaison Group.

- For Green proposals, the Liaison Group will be notified upon receipt of a formal application; the Liaison Group may also request to be notified when the project permit is issued.
- For Yellow proposals, notification will occur once the proponent has indicated a serious intent to proceed. In some cases, a proponent's intentions may not be known prior to receipt of a development application. The intent is to enable the Liaison Group to provide input at the earliest possible stage in the review process. This input might include identifying studies and additional information to be provided by the applicant as well as

advising on appropriate level and format of public consultation.

- Proposals for Red uses will not move forward to the application review stage.

(B) APPLICATION REVIEW STAGE

Green and Yellow uses will be reviewed as follows:

Outright Approval Uses (Green)

The VPA and City will follow their normal development review processes. For proposals on Port property, Green uses will generally be processed at the VPA's Standard Review level. Proposals under the City's jurisdiction will be processed as an outright development under the City's Zoning and Development By-law. As Green uses are expected to have minimal or no off-site impacts, they will usually not require public consultation. On rare occasions, a proposed Green use may have potential off-site impacts either during construction or upon completion. For such proposals on Port lands, the VPA may elect to process the application at its Public Review level.

Conditional Approval Uses (Yellow)

The VPA and City will follow their normal development review processes. For proposals on Port property, Yellow uses will be processed at the VPA's Public Review level. Proposals under the City's jurisdiction will be processed as conditional developments under the City's Zoning and Development By-law.

The role of the Liaison Group is to inform the approving body (i.e. VPA or the City) on potential community issues and impacts related to the proposal within the context of the EVPL Plan. The development proponent may be asked to meet with the Liaison Group to explain the development proposal. The Liaison Group may also advise the approving body on the public consultation process. Such advice will respect the consultation practices of the approving body.

The Liaison Group and the approving body will review feedback from the community as well as information from impact studies. The Liaison Group and other stakeholders will then have the opportunity to provide additional comments on the proposal. The proposal may then be revised to address these comments prior to its final review and consideration by the approving body.

(C) APPROVAL STAGE

Approvals for proposals on Port lands in the EVPL are made by the VPA Project Review Committee (PRC). The VPA Project Permit may contain conditions that the project proponent is required to satisfy prior to, during, or following completion of the project to ensure consistency with VPA objectives and the EVPL Plan. For developments under City jurisdiction, approval is made by the City's Development Permit Board, the Director of Planning or other designated City staff. Required conditions for design revisions, impact mitigation plans, or on-going monitoring requirements will become part of the approval and will need to be satisfied prior to issuance of the development permit. This type of "conditional" approval is standard practice in the City.

Outright (Green) Use Approval Process

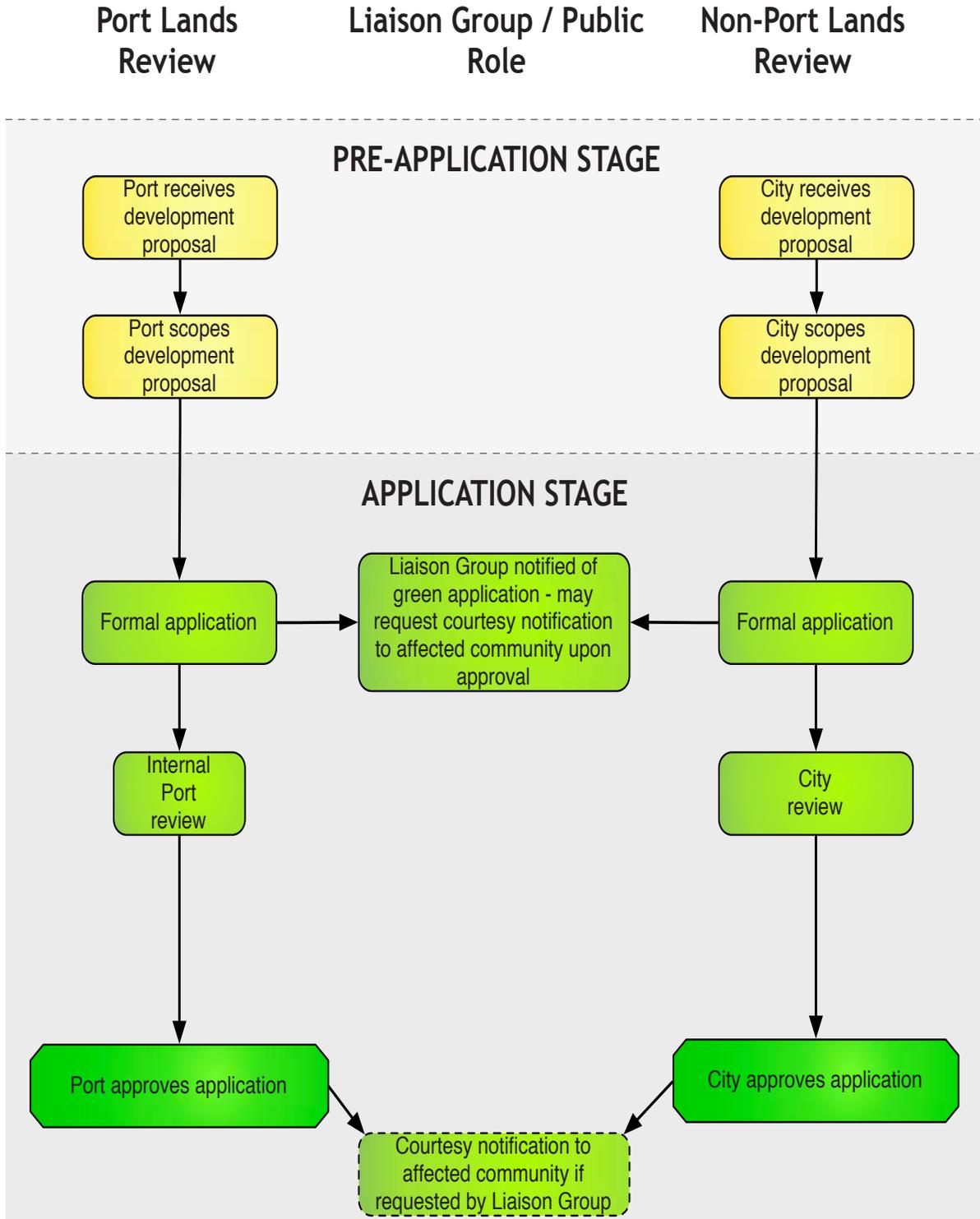


Figure 6: Green Use Approvals Process

Conditional (Yellow) Use Approval Process

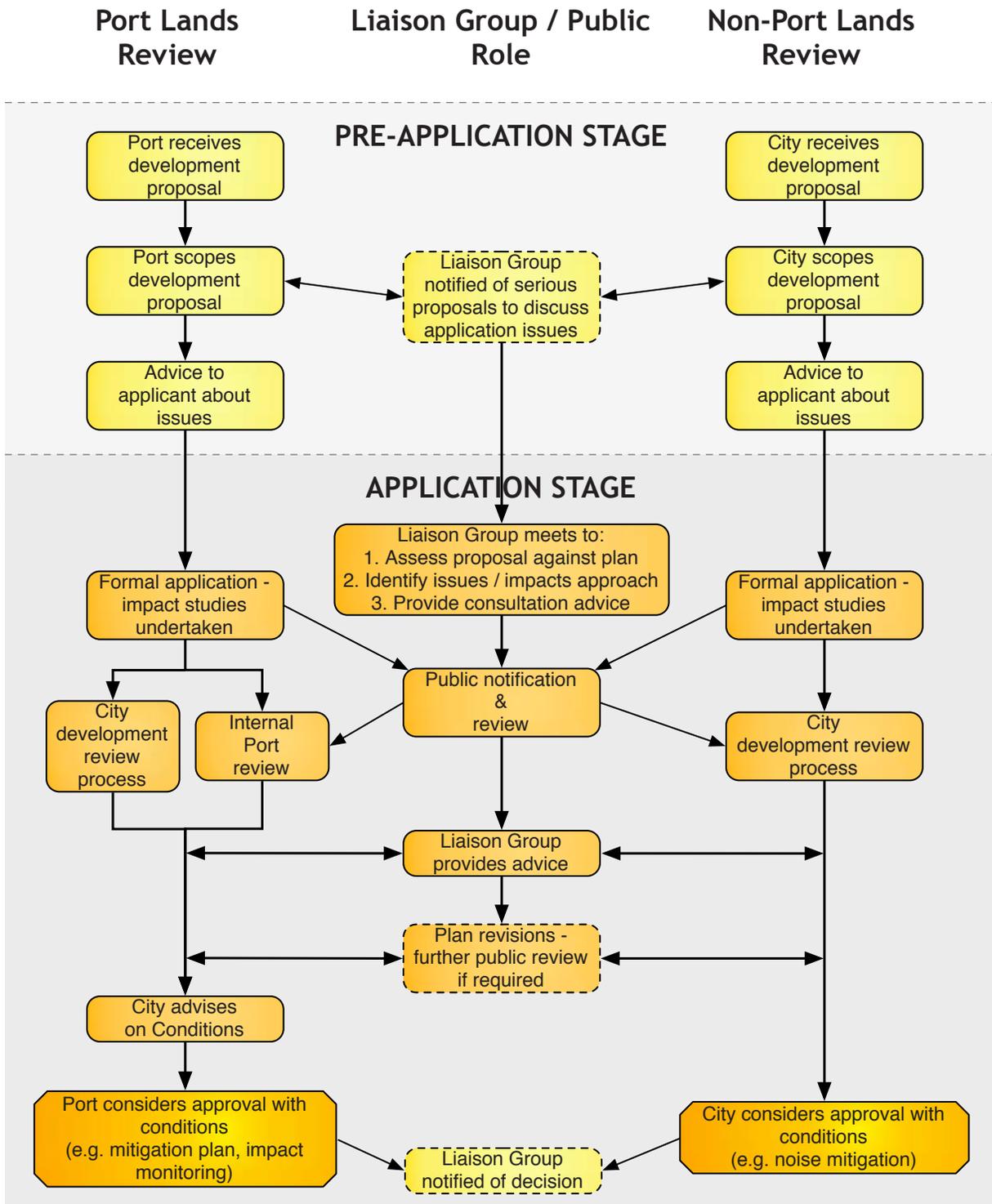


Figure 7: Yellow Use Approvals Process

2.8 Land Creation

The VPA may receive or initiate proposals that would extend the land base in the EVPL by filling in portions of Burrard Inlet. Creation of new land through fill provides a means to increase land area for Port operations as well as to improve the efficiency of existing sites by regularizing their shoreline perimeter. New fill is most likely to occur within recesses along the shoreline.

Land uses involving fill merit special attention, particularly since height guidelines (Section 3) are based on existing land configurations. The following approach will be used to review projects that occur on new fill:

- Projects will continue to be classified according to the Green, Yellow and Red land use categories as described in Appendix B;
- Regardless of the land use classification, projects involving new fill in the EVPL will require public consultation unless the Liaison Group waives the requirement;
- Once the project proponent has indicated a serious intent to proceed, VPA will notify the Liaison Group and seek their advice with respect to an appropriate format for public consultation;
- Height guidelines described in Section 3 will apply for new projects developed on existing land and on new fill. For structures placed on newly filled land, project proponents will be required to provide a view analysis that evaluates view impacts and considers other siting options to reduce or eliminate those impacts. The Liaison Group may waive the requirement for a view analysis; and
- Construction management practices will strive to minimize community impacts for all new projects on fill as they would for other projects.

2.8.1 External Review of Land Creation

In addition to VPA's project review process, the Burrard Environmental Review Committee (BERC) reviews proposals that involve fill from a marine environment perspective and may make recommendations for mitigation of environmental impacts. Authorization from Department of Fisheries and Oceans (DFO) is also required for projects that involve fill. For major projects that generate significant public interest, both the BERC review and DFO authorization require that the project proponent appropriately consult the public regarding potential impacts to the marine environment as well as socio-economic impacts that may result from changes to the marine environment.

2.9 Land Use Principles

The following principles summarize the land use directions for the EVPL:

- To recognize that the Port has a limited land base and that the EVPL represents one of few under-developed areas remaining on the waterfront to accommodate Port growth.
- To recognize that the Burrardview Community is a stable and attractive place to live and to ensure that new Port uses do not negatively impact the livability of the community.
- To recognize that proposals for the creation of new land by filling in a portion of Burrard

Inlet may come forward and that developments occurring on new fill will require additional attention to ensure that impacts are appropriately mitigated.

- To recognize that the VPA, the City and the community need to work cooperatively to accommodate Port land uses that allow for the successful co-existence of the residential and Port communities.

2.10 Land Use Actions

- Revise the CD-1 (258) zoning bylaw to ensure consistency with the EVPL land use principles and policies – City of Vancouver.
- Implement appropriate industrial zoning for the Maple Leaf Storage site (3001 Wall Street) in consultation with the property owner – City of Vancouver.
- Develop and implement noise mitigation standards for new residential in areas most affected by Port noise in consultation with the community and VPA – City of Vancouver.
- Implement a landscape maintenance program to trim vegetation in parks and at street ends on City owned land to preserve public views. – City of Vancouver.

The following Plan sections contain specific principles and policies to be considered in evaluating new Port uses to ensure the key impact areas of heights and views, noise and air quality are addressed.

3. Key Impact Issues - Policy and Guidelines

3.1 Heights and Views

3.1.1 Background

A distinctive feature of the Burrardview Community is the escarpment that provides views over the Port lands of the Burrard Inlet and the North Shore mountains. Protection of these views is a primary concern for residents along Wall Street and for users of the area's parks.

The VPA expects that the EVPL will be developed for Port industrial uses with underutilized and vacant parcels accommodating projected growth. Some structures common in Port industrial uses, such as loading towers, storage silos and cranes, require significant height to function and could encroach on views.

The pace of container traffic growth in the Port and the expansion of Vanterm and Centerm terminals to the west indicate that additional container storage is likely to occur in the EVPL. While containers are currently stacked up to five high (47 feet/14.3 metres), available technology would enable stacking up to eight high (76 feet/23 metres) to make better use of the Port's limited land base. A balance must be achieved between preserving as many views as possible while still providing flexibility for the Port to locate taller structures in the EVPL.

In a growing city, private and public views frequently change as sites redevelop, often generating concerns from nearby residents whose views are affected. Historically, structures in the EVPL have not created many view impacts because of the differences in elevation between residential and Port lands (see Figure 9). However in 1990, the Elders grain facility (now Coastal Containers) was approved. It required a loading tower that impacted views.

In response to community concerns, the City rezoned the EVPL to CD-1. This established a height limit of 9.14 metres (30 feet), with relaxations of up to 30.5 metres (100 feet) permissible, subject to consideration of view impacts and any other relevant factors, policies and guidelines.¹ However, these height limits are only voluntary since Port land falls outside of the City's jurisdiction.

3.1.2 EVPL Height Guideline Approach

In Vancouver a variety of zoning tools and guidelines control the height of buildings. In areas where buildings are of the same type and form, (e.g. residential areas), prescriptive height limits generally apply. In mixed use areas where varied building types and forms create many possibilities (e.g. in the downtown core and along Broadway), a more flexible approach is used to allow trade-offs to achieve better urban design and optimal view preservation. In the EVPL, which has a wide range of structure types, elevations and view conditions, a flexible height guideline approach is most appropriate.

3.1.3 Public versus Private Views

In Vancouver, public views are considered important to the city's livability. The City reviews all development proposals with the objective of minimizing impacts for both public and private views,

¹ This is typical of how height limits are regulated in Vancouver. Many zones include a lower "outright" height limit that can be achieved with limited review, and a "discretionary" higher limit that may be achieved if design policies or guidelines are met that define in some detail where and for what reasons greater heights will be considered.

with priority given to public views where a trade-off is required. Similarly in the EVPL, while the overall objective is to minimize view impacts for both private owners and the public, priority should be given to public views where a trade-off exists. This approach is consistent with the Hastings-Sunrise Community Vision which advocates for the protection of views from public places like parks and streets.

3.1.4 EVPL Views Analysis: Reconciling Port Growth and View Preservation

Key public views from seven park and street end locations along Wall Street were used to establish height guidelines for the EVPL. Figure 8 illustrates six separate height zones, determined through an analysis of escarpment elevations and existing views of Burrard Inlet and the North Shore. The intent is to establish height guidelines that preserve the majority of mountain views and as much water view as possible in each area, while permitting flexibility for the VPA to respond to growth demands.



Figure 8: EVPL Area-by-Area Height Guideline Limits

As shown in Figure 9, elevation differences between the escarpment and Port lands vary significantly, impacting opportunities for view preservation. As a result, some view loss is likely depending on the area. In most areas, some loss of water views is possible, with precise impacts depending on both elevation and on-site building location.

ELEVATION OF WALL STREET (COMMERCIAL TO TRINITY)

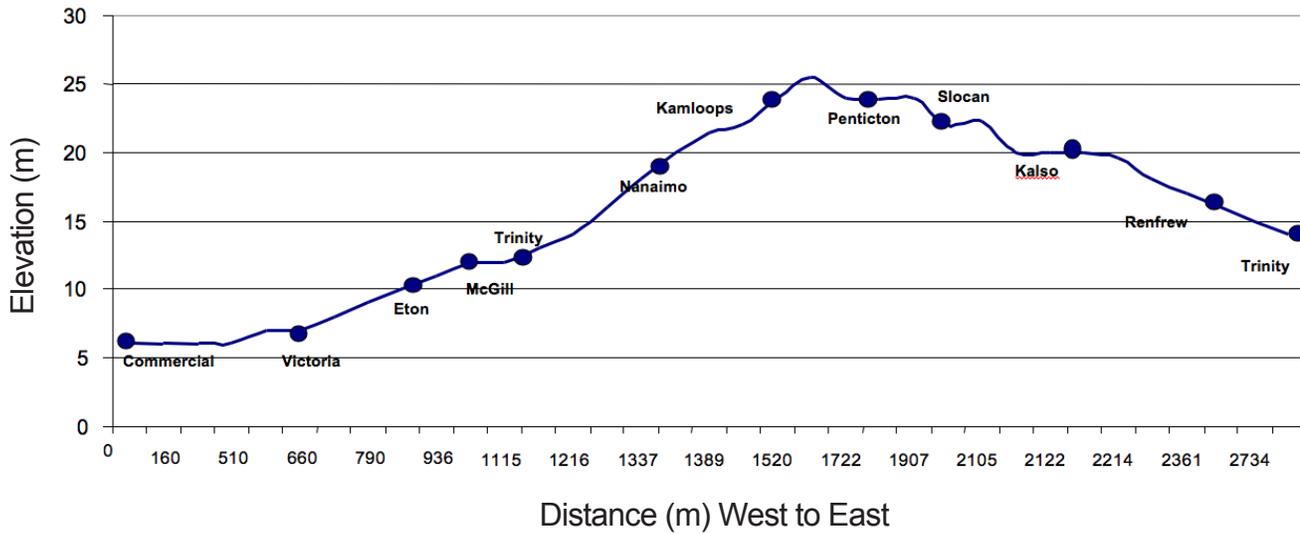


Figure 9: Cross Section of the Wall Street Escarpment

Area 1 at the western end of the EVPL presents the most difficult challenge for view preservation. Current views are already impacted by existing buildings of up to 23 metres (75 feet). In addition, the low elevation of the residential land (see Figure 9) near the Port does not permit view preservation over even very low Port structures of about 9.1 metres (30 feet) in most cases (the exceptions would be from upper level residential units that are located above this height). Hence, restricting heights to 10.7 metres (35 feet), as is recommended to the east, would not achieve significant view preservation for the majority of residents. It is therefore recommended that heights up to 13.7 metres (45 feet) may be considered in this area, subject to locational criteria and other conditions contained in the Heights and Views policies.

In **Area 2**, the recommended height guideline is 10.7 metres (35 feet). This limit will preserve mountain views and the majority of water views depending on the exact location of buildings and the viewing point.

In **Area 3** (east of Nanaimo), a rising escarpment permits consideration of heights up to 16.8 metres (55 feet) in the EVPL while achieving the same view protection objectives as in Area 2.

At the eastern end of the study area, the escarpment drops, requiring more careful location of Port buildings to preserve views. For **Area 4** (between Slocan and Kaslo), a height guideline of 13.7 metres (45 feet) is recommended. For **Area 5** (east of Kaslo), a height guideline of 10.7 metres (35 feet) is recommended.

Area 6 contains Cascadia Grain terminals and New Brighton Park. No change is anticipated in this area within the 20-year time horizon of the Plan and so existing views from surrounding residential areas should not be impacted. However, a view analysis should be provided if substantial change occurs such as the addition of more grain terminals.

The preceding height guidelines pertain to new buildings and structures where heights are static and readily determined. Containers also create view impacts from the escarpment but differ from buildings since their view impacts change as containers are moved frequently. Containers have

standard heights of either 2.6 metres (8.5 feet) or 2.9 metres (9.5 feet). While heights of stacked containers will generally respect the height guidelines, stacking taller containers may result in heights slightly above guideline limits in some areas. In areas with guideline limits of 10.7 metres (35 feet), stacking of four taller containers would be permitted to 11.6 metres (38 feet). In areas with guideline limits of 13.7 metres (45 feet), stacking of five taller containers would be permitted to 14.5 metres (47.5 feet).

While it was not possible to review all of the many view perspectives across the study area, the policies recognize the importance of both mountain and water views and provide for site-specific review of the design and location of proposed structures to minimize these view impacts.

3.1.5 Heights & Views Principles

The following principles summarize the broad height and view directions for the EVPL:

- To recognize that much of the Port lands in the EVPL area are currently vacant or under-utilized, centrally located on major rail and road corridors, and therefore likely to experience development which may impact public and private views from the escarpment;
- To recognize that Burrardview neighbourhood is enhanced by its panoramic views of Burrard Inlet and the North Shore and that the livability and appeal of the area will be negatively impacted to the degree that these views are lost;
- To recognize that topography and associated views vary considerably across the neighbourhood, and that structure heights should respond as equitably as possible across the area;
- To recognize that within the height guideline limits, effort will be made in the design and location of all structures (including building ramps, containers, trees, and landscaping) to minimize view impacts;
- To recognize that some uses will require greater height, but that height flexibility above the guideline limit will only be considered in limited instances over a small portion of a site;
- To recognize that while all views are important, preservation of important public views should take priority over private views when a trade-off is required; and
- To recognize that existing structures should generally have the ability to remain or be rebuilt even if they do not comply with the height guidelines.

3.1.6 Heights & Views Policies

- H1: Heights for new structures within the VPA portion of the EVPL will generally be between 10.7 metres (35 feet) and 16.7 metres (55 feet) as shown in Figure 8.
- H2: New development with significant portions of structures (e.g. conveyors, silos, towers) above 10.7 metres (35 feet) will generally be located in Areas 1, 3 & 4.
- H3: Where new development requires height above the guideline limits, and the use is an outright use (Green), the proposed use will be treated as a conditional approval (Yellow) use. A view analysis will be required to determine the magnitude of the view encroachment and how the design of the structure or building responds to the local environment. Other relevant Plan policies will be considered.
- H4: Where a portion of a structure needs to be above the height guideline limit, a view analysis will determine whether view benefits can be realized by reducing the height of the remainder of the structure by an equivalent amount to achieve an average height that meets the guidelines.
- H5: In Areas 1 through 5, heights above the guideline limits will normally be considered only for structures occupying a small portion of any site (such as loading towers) and will be limited to a maximum width of 12 metres (40 feet) in most instances. Where functional requirements can be shown to require greater width, an increase in this maximum width may be considered where view impacts are limited.
- H6: All new structures, including those that meet the height guideline limits, will be sited to minimize view impacts.
- H7: Area 6 contains Cascadia Grain terminal. This terminal is not anticipating expansion over the Plan time horizon of 20 years, but if redevelopment or additions to current structures occur, a view analysis will be required to determine and minimize any view impacts.
- H8: Stored containers differ from fixed structures because their view impacts change frequently. In Areas 2 and 5 [with fixed structure guidelines of 10.7 metres (35 ft)] containers will not be stacked more than four high [up to 11.6 metres (38 feet)]; in the remaining areas, containers will not be stacked more than five high [up to 14.5 metres (47.5 feet)].
- H9: The design aesthetics of new structures will be optimized through high quality industrial materials, colour, detailing, landscaping and general design to reduce the obtrusiveness and minimize the visual impact of the structure.
- H10: Leases with owners of new structures will contain provisions to ensure a high standard of exterior maintenance for the life of the structure.
- H11: Owners of existing structures will be encouraged to maintain a similar high standard of exterior maintenance.
- H12: Preserving public views will take precedence over preserving a private view. Where existing structures are currently in a public view corridor, they will have the ability to remain or be rebuilt within the public view corridor, but only if view impacts do not

increase as confirmed through a views analysis.

H13: In the following instances existing structures will be “grandfathered” and need not comply with the height guidelines:

- Where a structure is partly or entirely destroyed by fire, it can be rebuilt if the form of the new structure does not increase view impacts;
- Where the use on the site remains the same but the structure has reached the end of its useful life, it can be rebuilt if the form of the new structure does not increase view impacts;
- Where the use on the site changes, an existing structure can remain.

3.1.7 Heights & Views Actions

- Revise the CD-1 (258) zoning bylaw to ensure consistency with the EVPL height principles and policies – City of Vancouver.

3.2 Noise

3.2.1 Noise Background

Commissioner Street is a major truck route that parallels the CP Rail mainline. Both link the container, grain and break bulk terminals in the Port with the regional road and rail networks and operate 24 hours a day. Residents living in the Burrardview neighbourhood identify rail and truck noise as one of their most immediate and consistent concerns relating to Port operations. In particular, late night and early morning noise levels, primarily from rail, interfere with sleep. Noise levels from tenant operations in the EVPL have been less of an issue.

To develop a better understanding of noise characteristics in the neighbourhood, Wakefield Acoustics (an acoustical consulting firm) conducted two noise studies (available online at www.vancouver/evpl). The purpose was to:

- Monitor noise levels from waterfront activities at various points in the Burrardview neighbourhood;
- Identify noise sources and help understand how they contribute to the overall noise impact experienced by area residents;
- Evaluate the feasibility and potential impact of various noise barrier options; and
- Recommend measures to address the noise issues.

Between September 21 and 30th 2005, 24-hour continuous noise monitoring was conducted at ten residential locations throughout the Burrardview neighbourhood. Two monitoring locations were attended by a Wakefield Acoustics’ engineer and the other eight locations were unattended. To ensure the information collected was reflective of the week’s noise events, one of the locations was monitored over a seven-day period. Vancouver Coastal Health staff provided 24-hour unattended monitoring over a seven-day period to observe day-to-day variation in Port-related community noise exposure. The results (see Figure 10) show that sites on the north side of Wall Street suffer

significantly greater noise impacts than the remainder of the community and that the primary sources of noise are rail and trucks.

Please refer to Appendix D for a technical background to understanding noise.

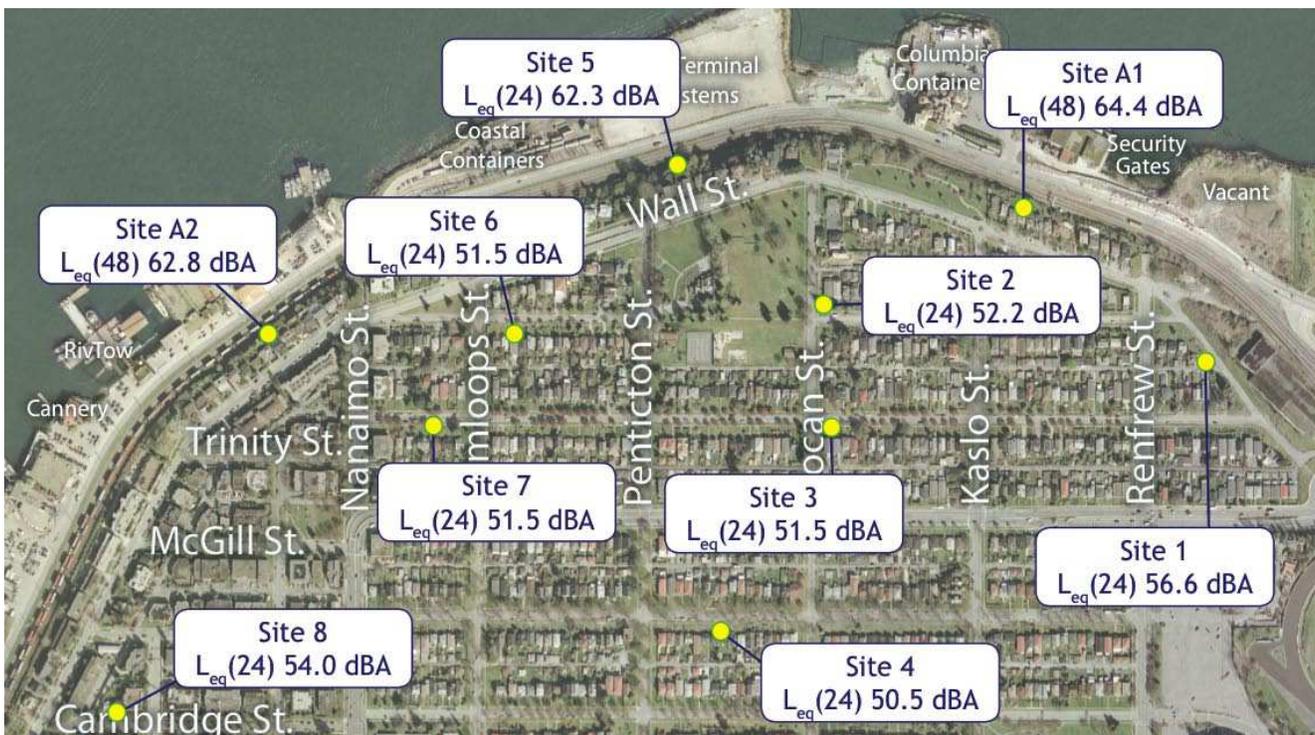


Figure 10: Noise Monitoring Site Map and Leq's

3.2.2 Key Findings of Noise Study

- The Burrardview neighbourhood is subject to two main sources of noise – rail activities and truck movements. Tenant operations in the EVPL were not found to be significant noise contributors.
- Daily average noise exposure at three monitoring sites along the north side of Wall Street [from $L_{eq}(24)$ 56.6 to 64.4 dBA] exceeded community noise thresholds established by Health Canada and CMHC by 7-10 dBA. Noise exposure at six other unattended sites south of Wall Street [ranging from $L_{eq}(24)$ 50.5 to 54.0 dBA.] were found to comply with Health Canada and CMHC guidelines but marginally exceed the more stringent U.S. Environmental Protection Agency (EPA) guidelines.
- Noise exposures along the north side of Wall Street are generally lower than those measured at fronting homes along major arterial roads in Vancouver. However, noises from train activities often contain characteristics (such as tones, impulses and low frequency engine noise) that make them more intrusive than general urban road traffic noise. In addition, railway noise tends to persist through the nighttime hours (10:00 pm to 7:00 am).
- Train activities contribute the largest share of the noise at locations along Wall Street.

- Heavy trucks contribute most of the remaining noise. Truck volumes are heaviest during daytime hours (7:00 am to 10:00 pm) with an average of 210 trucks per hour. Volumes are significantly lower during the night (82 per hour), and particularly from 24:00 (midnight) to 05:00, (27 per hour), the critical hours for most people to get a good night's sleep. However, as Port activity grows in the area, truck volumes are anticipated to increase. If truck volumes doubled, it would increase overall daily average noise exposures by about 3dBA, making it comparable with existing train noise contributions.
- The presence of the Commissioner Street gate tends to increase the noise output of westbound trucks by about 2 to 3 dBA over that of eastbound trucks. To the noise receiver this increase is detectable but not immediately evident. (A 5 dBA change would be readily apparent.)
- Day-to-day variation in overall noise exposures was found to be quite small – from 62.1 to 63.7 dBA – over the five weekdays with an average of 63 dBA. Weekends were found to be 3.5 dBA lower, with an average of 59.5 dBA.
- There are three approaches to reducing noise impacts in the area: (1) constructing noise barriers at various locations; (2) reducing noise at the source; and (3) improving sound insulation of residences.

3.2.3 Noise Barrier Feasibility

A detailed analysis of various noise barrier options was undertaken by Wakefield Acoustics to evaluate their feasibility and benefits. Noise barriers reduce traffic noise levels by interrupting the direct sound path between the noise source(s) – heavy truck/train, engines and exhausts – and the noise receiver locations – Burrardview residences. The more the barrier breaks the “line of sight and sound”, the greater the benefit. Therefore the higher the barrier the greater the benefit. To assess the effectiveness of various barrier options, a target noise reduction of 10 dBA was established. This reduction would reduce the noise level at the first storey of fronting residences along Wall Street to the CMHC recommended threshold of exposure for road and rail traffic noise (55. dBA).

Hypothetical barriers located at the top of the escarpment, along the property line between CP Rail lands and private residences, just to the south of the rail tracks, and adjacent to the road were modeled. Higher cantilevered (angled) options over the rail tracks were also investigated. The conclusions are summarized below:

- The barrier location most effective at reducing noise would be a “break-in-slope” barrier wall (located along the top of the escarpment) which would achieve a 10 dBA reduction in noise for residences along the north side of Wall Street. However, a barrier in this location would block views and is challenging for geotechnical reasons. Estimated costs for this barrier is \$3,550,000. In addition, the benefits are limited for residences beyond those facing the EVPL.
- A trackside barrier could also meet the 10 dBA target if it were cantilevered over the tracks and extending 12.5 m horizontally and 11 m above the centre of the tracks. It would also provide substantial shielding of truck noise. Because of the difficulty in constructing such a barrier which would need to be built into the escarpment and form a partial retaining wall for the slope, the cost is estimated at \$25,300,000. Again, the benefits are limited for residences beyond those facing the EVPL.

- A roadside barrier was also examined but it does not address train noise and would not achieve a 10 dBA reduction in noise.

Given these costs and benefits, future work during Plan implementation will focus on methods for reducing noise at the source. These methods include implementing quieter technologies that are proven to be effective and are economically feasible, and working with CP Rail to address operational issues.

3.2.4 Noise Principles

The following principles summarize the noise mitigation directions for the EVPL:

- To recognize that noise is an important health issue that affects quality of life.
- To recognize that the Burrardview neighbourhood is directly impacted by Port noise.
- To recognize that Port industries are reliant on the transportation of goods by truck and rail.
- To recognize that mitigation efforts can reduce noise impacts, but cannot eliminate them entirely.
- To recognize that new residential development needs to respond to the existing noise environment.
- To recognize that mitigation of noise impacts in the EVPL will require cooperative and on-going efforts by the VPA, CP Rail, Port tenants and Burrardview residents to explore and consider all feasible options.

3.2.5 Noise Policies

The following policies direct how noise issues will be addressed in the EVPL:

- N1 Recognizing the unique EVPL context of an active and growing rail and truck traffic corridor immediately adjacent a residential neighbourhood, consider both noise source reductions and noise barriers to assist in minimizing noise received in the Burrardview neighbourhood.
- N2 Ensure that new residential development in areas of Burrardview most affected by noise from Port activities incorporates noise mitigation measures.
- N3 Recognizing that rail transportation is the major source of noise in the EVPL, ensure that best management practices are continuously reviewed and implemented to minimize noise from train engines, train car shunting and all other sources of train car movement.
- N4 Recognizing that truck traffic is the second largest contributor to noise in the EVPL and is anticipated to grow in the near future, implement road traffic management measures to smooth traffic flow, minimize noise from vehicle accelerations and decelerations and reduce road noise.

- N5 Work with existing terminal operators to implement best management practices that will minimize noise such as regular maintenance of terminal vehicles and equipment and implementation of quieter technologies.
- N6 Continue to promote and advance VPA's restrictions on the use of engine brakes for trucks operating within the EVPL and to encourage proper maintenance of vehicles equipped with engine brakes.
- N7 Ensure effective two-way communication between the Port users and Burrardview residents to share noise information and to better target specific activities and times to reduce noise.

3.2.6 Noise Actions

- Investigate and establish a system of integrated communication between the Port, Port tenants, CP Rail, and Burrardview residents regarding noise and other operational concerns. Ensure that shared information and follow-up are integral parts of the system – Vancouver Port Authority.
- Monitor the progress of Bill C-11 (legislation to amend the Canadian Transportation Act) and initiate changes to rail operations in the EVPL that respond to new requirements regarding rail noise in a timely manner – VPA/City of Vancouver/CP Rail.
- Continue to review train operations in the EVPL with the aim of reducing noise at source and continue to perform regular track maintenance to minimize friction and mechanical noise and educate train operators in noise mitigation practices – CP Rail.
- Continue to investigate suitability of emerging rail technologies that have the potential to reduce noise from train operations in the EVPL study area – CP Rail.
- Evaluate the results of the Noise Barrier Feasibility Study and the costs/benefits of a noise barrier along the south side of the CP rail line to mitigate noise for adjacent neighbours – VPA / City of Vancouver / CP Rail.
- Continue to manage all aspects of truck movement in the Port, including security gate operations with the objective of minimizing road and mechanical noise from trucks – Vancouver Port Authority.
- Enforce engine brake restrictions to reduce noise impacts on the surrounding community – Vancouver Port Authority.
- Work with the Burrardview neighbourhood to revise the current RS-1 and RM-3A zoning to incorporate noise mitigation requirements for new development in areas recommended by the EVPL noise study – City of Vancouver.
- Request the Vancouver Coastal Health Authority periodically monitor noise levels in the Burrardview neighbourhood and compare results with their 2005 results in order to monitor changes in noise levels – City of Vancouver.

3.3 Air Quality

3.3.1 Air Quality Background

Air quality is influenced by air emissions, geography, weather and chemistry. Sources of emissions that can impact air quality include stationary sources such as factories, power plants, refineries, and residential space heating; mobile sources such as cars, buses, trucks; non-road engines/equipment, such as planes, marine vessels, trains, cranes, forklifts and construction equipment; and finally, natural sources such as forest fires, windblown dust and biogenic emissions from vegetation. Emission inventories, monitoring and modeling are used together to obtain information about air quality and the extent of its impacts.

Air quality in Greater Vancouver is generally good. However, health and environmental effects can occur at existing air quality levels. Members of the Burrardview community have expressed concerns about air quality in the area including the impact that Port-related emissions from vessels, industrial operations, rail and trucks may have on the health of area residents.

3.3.2 Jurisdiction and Air Quality Mandates

Several agencies have authority or control over various aspects of air quality management in the EVPL study area. The following section attempts to clarify the lines of jurisdiction.

(1) VPA

The VPA and all other port authorities within Canada fall under federal jurisdiction. The VPA is committed to reducing emissions that contribute to air quality and climate change, and its vision, mission and values support this direction. Some of the guidance available to the VPA for managing Port-related air emissions comes from the Canada Wide Standards for Particulate Matter and Ozone, specifically Annex A which relates to continuous improvement and keeping clean areas clean. Additional guidance comes from Section 5 of the Canada Marine Act Port Authorities Operations Regulations which states:

Unless otherwise authorized under these Regulations, no person shall, by act or omission, do anything or permit anything to be done in a port that has or is likely to have any of the following results: (h) to adversely affect soil, air or water quality.

The VPA is currently leading development of a Port emission inventory for land-based sources, which will complement the recently released BC Chamber of Shipping ocean-going vessel emission inventory. Together, these studies provide a benchmark against which to measure progress toward reducing emissions, and will provide input into decision making around where to focus future emission reduction efforts.

The VPA also requires all development proposals for Port property to undergo an environmental review that includes an assessment of air emissions. Applicants are required to demonstrate an ongoing commitment to continuous improvement in terms of reducing air emissions during construction and operation.

(2) GREATER VANCOUVER REGIONAL DISTRICT (GVRD)

Under the BC Environmental Management Act, the GVRD is responsible for air pollution control and air quality management within Greater Vancouver except for those areas under federal jurisdiction such as VPA lands in the EVPL area. The GVRD's Air Quality Management Bylaw

No. 937 outlines the GVRD's powers with respect to regulation, permitting and enforcement of emission sources in Greater Vancouver. Many industrial facilities on VPA lands along the Burrard Inlet voluntarily hold GVRD Air Quality Permits for their stationary source emissions (e.g. stack discharges, process vents, fugitive dust). However, permits do not address vessel emissions and other mobile sources such as non-road engines, truck and rail traffic. The GVRD has initiated a review of its Air Quality Management Bylaw and will be consulting with interested parties in 2007.

In late 2005 the Board of the GVRD approved a new Air Quality Management Plan for Greater Vancouver (AQMP). The AQMP has three primary goals: 1) to minimize the risk to public health from air pollution; 2) to improve visibility; and 3) to minimize Greater Vancouver's contribution to global climate change. Several cooperative actions under this Plan are relevant to the EVPL, including initiatives to reduce emissions from space heating, industrial, commercial and institutional (ICI) sources, on- and off-road engines/equipment such as trucks, trains, cargo handling equipment, and marine vessels.

The GVRD also operates several ambient air quality monitoring stations within the Lower Fraser Valley and compiles regional emission inventories and forecasts every five years.

(3) THE FEDERAL GOVERNMENT

Transport Canada regulates engine emissions for aircraft, rail locomotives and marine vessels. It also regulates the opacity or density of ship emissions, in Canadian waters within one mile of land.

Environment Canada regulates emissions for engines not covered by Transport Canada such as cars, trucks and other off-road equipment. Environment Canada also regulates on- and off-road fuel quality which further reduces emissions.

The federal government is also currently in the process of developing legislation to support International Maritime Organization emissions standards for ships. These standards are described below.

(4) INTERNATIONAL MARITIME ORGANIZATION

Standards for international ocean-going vessels are established by a United Nations body, the International Maritime Organization (IMO). The IMO's Annex VI of MARPOL 73/78 contains modest nitrogen oxide (NO_x) emission standards for engines manufactured after 1999 as well as fuel sulphur content limits (4.5%). Annex VI also contains provisions to designate areas with sulphur oxide (SO_x) pollution problems as a SO_x emission control area (SECA), where fuel sulphur content would be restricted to 1.5%. These requirements are currently under review by a sub-committee of the IMO, with respect to more stringent emission and fuel quality standards. Annex VI applies to all ships of the Flag States which have ratified the Annex. In order to ratify the Annex, countries must first develop legislation to support the international requirements. Canada is in the process of developing such legislation.

3.3.3 Current Air Quality Improvement Initiatives

(1) BC MARINE VESSEL AIR QUALITY WORK GROUP

The working group has representatives from regulatory agencies, BC port authorities, the shipping industry and BC Ferries among others. The group provides a forum for exchange of information

and collaboration on various projects such as:

- the development of an updated emissions inventory for the year 2005 for ocean-going vessels,
- the integration of various agency workplans, and
- the development of a 2005 emission inventory for land-based activities associated with port operations in the Lower Fraser Valley.

(2) GVRD

GVRD has initiated work on a Burrard Inlet Area Local Air Quality Study, which will be the first in a series of “local” or multi-community air quality studies in Greater Vancouver. Over the next two years, the GVRD will:

- collate detailed information about air emissions (in cooperation with the BC Marine Vessel Air Quality Workgroup and other interest groups);
- augment its existing monitoring capabilities in the area; and
- conduct air quality modelling to estimate ambient concentrations of air pollutants, supplementing air quality monitoring data.

The GVRD will conduct this study to determine levels of air pollutants throughout the Burrard Inlet area, and how these levels compare to other locations in Greater Vancouver. Air quality monitoring is planned throughout the Burrard Inlet area, and may include the Burrardview neighbourhood. If the Burrard Inlet study identifies significant air quality issues, the GVRD will work with stakeholders such as other levels of government, health agencies, the public, port authorities and emission source operators to develop and implement action plans.

(3) THE FEDERAL GOVERNMENT

Transport Canada and Environment Canada are participating in the review of IMO’s Annex VI emission and fuel quality requirements.

Environment Canada is working with the U.S. Environmental Protection Agency to assess the potential for application to the IMO to designate some or all of North America as a SECA, to reduce sulphur oxide emissions and impacts.

Both Environment Canada and Transport Canada are also phasing in increasingly stringent on- and off-road engine emission and fuel quality standards.

(4) VPA

The VPA is committed to the environment and sustainable Port operations, a position that is supported by its vision, mission and values. Reducing Port-related emissions of criteria air contaminants and other air toxics as well as greenhouse gases is a key component of that commitment. The VPA recognizes that air quality and climate change impacts are already occurring, and that Port-related contributions have the potential to increase due to the growing demand for international trade.

The VPA is developing an Integrated Air Emissions Reduction Program for the Port of Vancouver, which includes initiatives currently underway by the VPA and its tenants, other industries and regulatory agencies. It will reduce emissions now and as the Port grows, helping to maintain and improve air quality for communities in and around the Port including the Burrardview neighbourhood. The Integrated Air Emissions Reduction Program for the Port of Vancouver is comprised of four main components including:

- **Data Baseline** – Detailed, locally-specific emission inventories are being developed collaboratively for ocean-going vessels and for Port land-based emission sources. These inventories will provide a basis for planning and a benchmark against which to measure progress towards emission reduction;
- **Operational Efficiency** – ensuring Port systems are running optimally, with as little wasted resources (i.e. time, fuel) as possible; one example is the VPA's support for idle reduction, including the City of Vancouver bylaw. The VPA rolled out an education program in 2006-7 to all of its tenants and container truck drivers on the benefits of reducing idling, and raising awareness about the City bylaw. The program will be expanded to include non-road equipment in 2007;
- **Technological Improvement** – initiatives such as fuel additives, alternative fuels and modifications such as scrubbers to reduce emissions; and,
- **Regulatory Change** – support federal government ratification of IMO's Annex VI, and subsequent application for SECA designation, as well as support a review of the existing Annex requirements with respect to more stringent feasible emission and fuel quality standards .

(5) TERMINAL OPERATORS

On the tenant side, Cascadia Terminal is actively working towards reducing grain dust emissions from their operations. Many factors affect the quantity of the emissions and the distance they travel, including grain-handling procedures, condition of handling equipment, wind speed and wind direction. To reduce grain dust emissions, Cascadia continues to invest in dust suppression equipment such as collection filters in addition to maintaining and upgrading their existing equipment. They are also testing the technique of spraying atomized water to settle airborne dust. Training of personnel in appropriate grain-handling procedures also plays an important role in Cascadia's efforts to reduce grain dust emissions.

3.3.4 Air Quality Principles

The following air quality principles frame how the VPA will address air quality as it relates to the EVPL.

- To recognize that air quality is an important health issue that affects quality of life throughout the airshed including the EVPL study area.
- To recognize that the Burrardview neighbourhood is in close proximity to the Port and has potential for impact from certain types of localized air emissions, in addition to the broader airshed issues, and specific measures may be required to address these impacts.

- To recognize that various jurisdictions have authority over air emissions associated with Port activities and solutions to air quality impacts will require a cooperative effort.
- To recognize that the VPA is committed to continuous improvement with respect to reducing air emissions from Port-related sources through its Integrated Air Emissions Reduction Program that includes initiatives by the VPA and its tenants as well as other industries and regulatory agencies.
- To recognize that regulation is only part of the solution to reducing air emissions within the EVPL and that opportunities for cooperation among operators, tenants, landowners and the public should play an important role.

3.3.5 Air Quality Actions

- Continue to work with stakeholders to create management strategies for emission sources including terminal operations, ships, trains and trucks – Vancouver Port Authority.
- Continue to work with existing terminal operators and project proponents to achieve continuous improvement with respect to reductions in air emissions throughout the Port and in the EVPL – Vancouver Port Authority.
- Continue to develop a Port land-based emission inventory (complementing the completed ocean-going vessel emission inventory), with other members of the BC Marine Vessel Air Quality Work Group – Vancouver Port Authority.
- Continue to implement the VPA's Integrated Air Emissions Reduction Program incorporating baseline data development, technological innovation, operational efficiency and regulatory change to achieve continuous improvement in the reduction of air emissions – Vancouver Port Authority.
- Provide regular updates to the public on its progress toward continuous improvement with respect to reducing air emissions from Port-related sources – Vancouver Port Authority.
- Conduct air quality monitoring and modelling throughout the Burrard Inlet area – GVRD.

4. Other Operational Policies: Transportation, Lighting, Safety & Security, Environment

4.1 Transportation Background

Transportation of goods by truck and rail is essential to Port-based operations. Given Vancouver's geographic location, it is expected that the Vancouver Port Lands will continue to be Western Canada's gateway to international markets, and the movement of goods through this area will continue to increase.

4.1.1 Road Transportation

Commissioner Street is a private road owned and managed by the VPA and is the primary east/west truck route linking Port operations to the regional road network. Rerouting of truck access from Renfrew Street to the Commissioner Street overpass in 1995 provided a safer, more efficient route that reduced impacts from truck traffic on the Burrardview neighbourhood. Truck volumes on Commissioner Street correspond primarily to the opening hours of the Vanterm and Centerm container terminals and are generally heaviest on weekday mornings. However, the VPA and terminal operators are implementing a reservation system for container truck traffic that together with an extended gate program will spread truck traffic over a longer period each day. The program will also reduce or eliminate traffic peaks, wait times, congestion and unnecessary idling. The reservations system is to be extended to all container truck traffic entering the Port in the future.

4.1.1.1 CORRIDOR MANAGEMENT PLAN

The VPA is currently implementing a management plan for Commissioner Street from Heatley Avenue to McGill Street. The Corridor Management Plan includes road improvements and maintenance scheduling to increase the efficiency of traffic movements. As a result, noise impacts from truck traffic and staging should be reduced. The highlights of the plan are summarized below.

Short Term Improvements

- Installing updated signage and pavement markings along Commissioner Street (directional signage, speed limits, avoid use of engine brakes etc).
- Fixing dips in the pavement
- Removing speed bumps
- Removing obstructions to the flow of traffic
- Enforcement of posted speeds and engine brake ban through truck licensing terms

Long Term Improvements

The Corridor Management Plan calls for a widening of Commissioner Street, to facilitate vehicular turning movements in and out of the operations in the EVPL. This will help smooth truck flow, reducing emissions as well as noise from truck engines gearing up and down.

4.1.2 Rail Transportation

Rail operations include CP Rail's mainline, which connects the Port with the main CP freight yards in Coquitlam, and the "L" and "K" storage yards. The CP mainline delivers container cars to Vanterm and Centerm as well as grain cars to Cascadia Terminal, Columbia Containers and Coastal Containers. The mainline also serves the West Coast Express commuter train between downtown Vancouver and eastern suburbs. During peak times, Cascadia receives a 100-car grain train every eight hours, and Columbia and Coastal Containers receive up to 20-car grain trains five days a week.

4.1.3 Marine Transportation

The Port of Vancouver is a year round, all weather, naturally deep harbour. These attributes have made it an important global shipping center. Since 1864 industries have located on Burrard Inlet to process, warehouse, and ship goods. Over time, some industrial activities have ceased operations or relocated allowing for waterfront redevelopment along Coal Harbour.

The remaining industrial waterfront in Vancouver is a precious commodity and in limited supply. The EVPL has a number of active waterfront operations including Cascadia Terminal where grain is transferred to large bulk carriers for export. Further west, Smit Marine Services uses the waterfront for barge operations while JS MacMillan Fisheries unloads commercial fishing vessels at their facility.

4.1.4 Transportation Principles

- To recognize that the EVPL area is a vital transportation corridor linking industrial waterfront activities in Vancouver with regional/national road and rail networks.
- To recognize that Commissioner Street and the CP rail line will continue to be used 24 hours a day and seven days a week.
- To recognize that truck and rail traffic noise and emissions impact the Burrardview neighbourhood negatively and that Port, CP Rail and Port tenants need to aggressively test and implement strategies to minimize impacts as much as possible.

4.1.5 Transportation Actions

- Improve the functioning of Commissioner Street and its connections to the regional transportation system – Vancouver Port Authority.
- Work with CP Rail to reduce operational impacts on the Burrardview neighbourhood – Vancouver Port Authority.

4.2 Lighting

Existing light sources in the EVPL include street lighting along Commissioner Street, lights in tenant facilities, and lights from ships, trucks and trains. Lighting is required to ensure a safe working environment and is also required for security purposes.

Lighting that is properly designed and managed should have little impact on the adjacent residential

community. However, poorly designed, badly installed and excessive lighting could negatively impact residents. This is often referred to as “light pollution” or “light overspill”. Light pollution is not only a nuisance but may also unnecessarily waste non-renewable resources. There are three main types of light pollution:

- Light Trespass: the intrusion of light into homes e.g. poorly positioned security lighting;
- Glare: unshielded bright lighting (e.g. an over-powerful security light or floodlights); and,
- Sky Glow: the broad orange glow that prevents appreciation of the night sky, common in urban areas.

4.2.1 Lighting Principles

- To recognize that lighting is required in Port areas to provide for safe operations and fulfill security obligations.
- To recognize that excessive or poorly designed lighting can negatively impact adjacent residents.

4.2.2 Lighting Policies

- L1 Applications for new development within the EVPL will include a lighting plan that ensures new light fixtures provide no more than the minimum lighting needed for the intended purpose, considering nationally recognized standards.
- L2 Ensure that the lighting level is the minimum required to ensure safety and security and that it points north or is shielded as much as possible to reduce impacts on residential properties located to the south.

4.2.3 Lighting Actions

- Explore the use of lighting control systems to reduce the amount of lighting in selected areas during periods of low activity – Vancouver Port Authority.
- Review lighting along Commissioner Street and on tenant property within the EVPL and update lighting that is a source of unnecessary light pollution – Vancouver Port Authority.

4.3 Security and Safety

In the past, Port security focused on preventing criminal theft from specific terminals. With security threats becoming a greater concern around the world, the VPA has invested heavily in security infrastructure throughout all Port lands and facilities. This initiative was largely driven by the International Maritime Organization (IMO) requirement for all international ports to comply with the International Ship and Port Facility Code (ISPS) by undertaking a risk assessment of all facilities and preparing and implementing a security plan.

In the EVPL, the Port Security Plan included the installation of vehicle access control gates on Commissioner Street and the installation of a perimeter security fence. Individual terminal operators are also required to prepare security plans tailored to their specific operations. As a result, the general public has limited access to the industrial waterfront, and all activities in the area are monitored by security cameras.

4.3.1 Security and Safety Principles

- To recognize that the industrial waterfront in the EVPL is a secure area with restricted access to the general public, and that vehicles, trains, goods and people are monitored.
- To recognize that the Port's security infrastructure needs to respect the privacy of residents in the Burrardview neighbourhood.

4.3.2 Security and Safety Actions

- Site camera equipment to monitor only those spaces on Port property that are required by the Port Security Plan to be monitored, such as the perimeter of the Port, railways, roadways, and terminals – Vancouver Port Authority.
- Advise affected neighbours of any changes to Port security that may affect them, and encourage those concerned to visit the Port's CCTV command and control center to ensure policies are being followed – Vancouver Port Authority.
- Inventory and re-fit adjustable cameras to restrict their surveillance coverage to spaces on Port property that are required by the Port Security Plan to be monitored – Vancouver Port Authority.

4.4 Dangerous Goods

The safe handling and management of products that are classified as dangerous goods is paramount to the health and safety of the workplace, adjacent communities and the environment. Following is a description of dangerous goods, how they are regulated through the Port of Vancouver and what procedures are in place to monitor, and respond to dangerous goods incidents.

4.4.1 Dangerous Goods Background

The Federal Government has identified around 3,600 products that are classified as dangerous goods by nature of their chemical properties, including characteristics such as flammability, reactivity and corrosiveness. In this classification system, dangerous goods include a range of everyday products such as paint, laundry bleach, propane, car batteries and butane lighters.

Proper handling and transportation of dangerous goods is regulated federally through the Transportation of Dangerous Goods Act, and provincially through the Workers Compensation Act. The TDS, enacted in 1985, imposes a legal obligation on those in custody of the goods to ensure the goods are securely packaged and transported and that they are identifiable through approved labeling. The Workers Compensation Act mandates proper worker education and knowledge about dangerous goods and appropriate handling procedures.

Dangerous goods that pass through the EVPL are transported by train or truck. Transport of dangerous goods is tracked by the Canada Transport Emergency Centre (Canutec). Detailed documentation on the identity, characteristics, proper handling and emergency response for each dangerous good is carried with each ship, terminal operator, truck and train. In addition, each carrier is required to prepare an Emergency Response Action Plan (ERAP) under the Dangerous Goods Regulations (TDGR). The plans are intended to assist local emergency responders by providing them with technical experts and specialized equipment at an accident site. In order to comply with the TDGR, an approved plan is required prior to dangerous goods entering the transportation system and all staff that have contact with dangerous goods are required to be trained and certified with re-certification every three years.

In the event of a dangerous goods accident, government agencies, local emergency services and industrial groups are required to respond. The first point of call is the Canada Transport Emergency Centre (Canutec) that provides information on the product and the proper handling procedures. The first responder is the Vancouver Fire Department Hazardous Materials Team. Depending on the nature of the accident, the Provincial Emergency Response center may be contacted and an Environmental Response Officer may be sent to the site, in addition to representatives from Fisheries and Oceans Canada, Transport Canada and Environment Canada.

For rail-related accidents, CP Rail has an emergency response team and a dedicated vehicle for quick response that serves as a command post, first-aid and communication center at the scene of an incident involving dangerous goods.

4.4.2 Dangerous Goods Principles

- To recognize that dangerous goods is a broad category of substances and includes products ranging from household products to industrial grade chemicals.
- To recognize that the nature of Port operations involve the continuing transport of dangerous goods through the EVPL by truck and train.
- To recognize there are various jurisdictions with authority over the transportation and safe handling of dangerous goods.
- To recognize that safe handling of dangerous goods is in the best interests of both the transporter and the Burrardview neighbourhood.

4.4.3 Dangerous Goods Actions

- Ensure emergency response plans for dangerous goods in the EVPL are current and familiar to the Vancouver Fire Department – Vancouver Port Authority.

4.5 Environment

4.5.1 Environment Background

Respecting the environment in and around the EVPL is essential for conserving natural ecosystems and maintaining community health. Previous sections of the Plan have addressed the three most common environmental concerns raised by the Burrardview Community: noise, air quality and lighting. All proposed developments or works on Port property are subject to an environmental review by VPA staff. Following is a summary of the existing complementary environmental plans and approval process for development along the shoreline and waters of Burrard Inlet.

4.5.1.1 CURRENT ENVIRONMENTAL APPROVALS PROCESS – BIEAP

The Burrard Inlet Environmental Action Plan (BIEAP) brings together agencies responsible for setting and enforcing environmental legislation with land and water policy makers. The BIEAP partners include Environment Canada, Fisheries and Oceans Canada, Transport Canada, BC Ministry of Environment, GVRD and the VPA. The goal of this partnership is to coordinate agency planning and operational decision making to protect the marine environment of Burrard Inlet.

In 2002, the five BIEAP partners approved the Consolidated Environmental Management Plan for Burrard Inlet and the seven municipalities in the BIEAP area, including Vancouver, have since endorsed it. The plan contains environmental policies and regulations pertaining to Burrard Inlet and identifies shared goals, objectives and actions to ensure coordinated decision-making and improved environmental quality. Since (and even before) the plan's adoption, all proposals for shoreline development and other activities in the marine environment of the inlet are reviewed by the Burrard Environmental Review Committee, consisting of representatives from the BIEAP with environmental assessment responsibilities. The Committee reviews the project and may provide recommendations for mitigation to the approving authorities and the project proponent.

4.5.1.2 CURRENT ENVIRONMENTAL APPROVALS PROCESS – CEAA

Some projects in Burrard Inlet may trigger federally legislated environmental assessments by the Vancouver Port Authority, Environment Canada, Fisheries and Oceans Canada, and/or Transport Canada. Where the Canadian Environmental Assessment Act (CEAA) definition of "project" is met, the following circumstances would trigger a required environment assessment:

- The triggering project is wholly or partly owned by any of the foregoing partners;
- The Vancouver Port Authority sells, leases or otherwise disposes of lands administered by it or any interests in those lands, for the purpose of enabling the project to be carried out in whole or in part;
- Any of the foregoing partners are financially involved in a project or provide some form of financial assistance to enable the project to be carried out in whole or in part; and
- Environment Canada, Fisheries and Oceans Canada, and/or Transport Canada issues a permit or licence, grants an approval or takes any other action for the purpose of enabling the project to be carried out in whole or in part.

The underlying legislation is CEAA, except that for the Vancouver Port Authority CEAA is applied only through the Canada Port Authority Environmental Assessment Regulations. These statutes place the responsibility to conduct the assessment on the agency rather than the proponent, but the assessing agency will likely require the proponent to carry out any studies or surveys (including seeking public comment where it is deemed warranted).

4.5.2 Environmental Approvals Principles

- To recognize that any proposed development or works on Port property within the EVPL area is subject to an environmental review process by the VPA and may also require review by the Burrard Environment Review Committee (BERC) or Canadian Environmental Assessment Authority (CEAA).
- To recognize that the Burrard Inlet Environmental Action Program and federal review processes address a broader range of environmental considerations that are not addressed in this Plan, but will benefit the EVPL indirectly.

4.6 Trees and Landscaping

Trees and landscaping have both advantages and disadvantages. Vegetation at street ends grows quickly, and without regular trimming obstructs important views. Large trees may also block views. At the same time, they provide environmental benefits (e.g. by providing wildlife habitat) and can be visually appealing in their own right. Along the embankment overlooking the Port, they screen industrial uses from view and help stabilize the slope.

4.6.1 Trees and Landscaping Principles

- To recognize that trees and other vegetation can provide aesthetic, slope stabilization, and environmental benefits to the EVPL.
- To recognize that inappropriate species and overgrown plants hinder key public and private views, and that regular maintenance and landscaping will be necessary at some locations.

4.6.2 Trees and Landscaping Actions

- Request that the Vancouver Park Board implement a landscape maintenance program to regularly trim landscaping in parks and at street ends on City owned land to maximize public views – City of Vancouver.
- Develop a landscaping plan for Port-owned lands, with the objective to preserve or enhance views and screen unsightly uses – Vancouver Port Authority.

5. EVPL Plan Implementation and Management

5.1 Introduction

Policies in this Plan provide direction for land use, heights and views, air quality, noise, and other issues that will guide future development approvals in the EVPL. The most fundamental implementation action will be the use of the Plan by the VPA to guide development and ongoing management of EVPL lands and tenants. City zoning will be amended to ensure consistency with the Plan and residential zoning and building regulations will be reviewed to consider the incorporation of noise mitigation features in their design and construction.

5.2 Plan Adoption

The first step in the implementation process will be adoption of the Plan by the City of Vancouver, the VPA Board, and the Burrardview Community Association and having CP Rail as a committed signatory to the Plan.

5.3 Plan Amendment

The Plan is intended to guide change in the EVPL for a twenty year period. However, unlike most plans which rest with the City as primary custodian, this Plan was developed by and will be implemented through the collaboration of the three primary partners. As such, many Plan approaches are new. It is anticipated that there will be a period of learning and adjustment, and adaptation of the processes recommended in the Plan through hands-on experience. These adjustments should not involve changes to the substantive policies but rather facilitate development of more productive ways of implementing these policies. It is not anticipated that these changes will require a formal Plan amendment.

There may also be substantive issues that arise that were not envisioned and addressed in the Plan. In most cases an appropriate direction should be evident based on similar plan policy or precedents. In these cases, small variances from Plan policies are acceptable and should not trigger the need for a formal Plan amendment. However, for those exceptions where a major issue arises, and there is no similar policy to provide direction, a Plan amendment may be warranted as discussed below.

5.4 Plan Amendment Process

Plan amendments are normally substantive and would require significant time and resources. They would need to be forwarded to the Vancouver Port Authority Board of Directors and to City Council via a staff report. They could require public notification and a formal public hearing and a consequential change to municipal zoning. For this reason, amendments should only be considered where issues are major and clearly outside the scope of the existing Plan, or where there is a significant departure from Plan directions. In these cases, the amendment process would ensure adequate public review and input occurs.

The general steps would be:

- The Liaison Group would identify and consider the need for a Plan amendment.
- The Liaison Group would assist the City of Vancouver and VPA staff in developing the

proposed Plan amendments that may include more than one alternative.

- Notification and consultation with affected stakeholders would occur prior to finalization.
- Proposed amendments that affect Port property would be forwarded to the VPA Board for their consideration and adoption.
- The proposed amendments would be forwarded to City Council for consideration and adoption. The process to make any consequential amendments to zoning would follow the normal process for City-initiated zoning text amendments.

5.5 Major Plan Review and Update

At some future date, the VPA, the City or BCA may believe there is a need for a comprehensive Plan review and update. A preliminary scoping would determine the extent of work required. If there is consensus that an update is required, a formal request should be made to the VPA and the City to allocate resources. It is anticipated that the review should follow a process similar to original Plan creation, involving representation from the VPA, Port tenants, City of Vancouver and the Burrardview community.

5.6 Dispute Resolution Processes

Effective Plan implementation depends on a high level of commitment from all parties to balance the interests of the Port and residential communities noted in the Plan vision and mission statement. Development of the Plan called for a significant investment of time, energy, and attention over a long period by the VPA, BCA, City and other contributors. This investment should help support a strong commitment to resolve differences and work to achieve the fundamental principal of the Plan of balancing the interests of the Port and the community. However, it is still possible that disputes could arise, and the following mechanisms should be considered to resolve them:

1. DISPUTES BETWEEN THE CITY AND THE VANCOUVER PORT AUTHORITY

If the City or VPA wishes to dispute a decision or action of the other, the City and VPA will use the dispute resolution outlined in the City/Port Charter. In the first instance, a joint review by the President and CEO of the Vancouver Port Authority and the City Manager of the City. If the review by the President and CEO of the Port Authority and the City Manager of the City is unsuccessful in resolving the dispute, a joint review by a committee consisting of the Mayor, two members of City Council and the City Manager, and the Chair of the Vancouver Port Authority, two member of the Board of the Vancouver Port Authority and the President and CEO of the Port Authority. If this approach is unsuccessful, mediation/arbitration will occur by an independent board where one member is appointed by each of the Vancouver Port Authority and City and a third member, who shall be the Chair, is appointed by the two members.

2. DISPUTES BETWEEN THE COMMUNITY AND THE CITY

The potential for disputes between the community and City over future development is limited given the majority of lands under City jurisdiction in the EVPL are zoned residential. If the community opposes a proposed development approval, the community can make representation to the Development Permit Board, the approving authority for major development proposals. The Board hears from effected members of the public and considers community concerns in rendering a decision. It can attach conditions to an approval or turn down a proposed development.

3. DISPUTES BETWEEN THE COMMUNITY AND THE VPA

The City will have a unique role to play in representing the interests of both the community and the Port and helping to find a balance between sometimes competing interests. In this sense, the City will act as a “de-facto” mediating influence in processes where disagreements may arise. However, it will not always be possible for the City to be successful in helping to find a resolution. For disputes involving a development proposal under VPA jurisdiction, the following process should be followed:

- If a community member disagrees with any aspect of the project review process [including, for example, the results of the impact studies, the consultation process, or VPA’s intent to proceed with a project report to the Project Review Committee (PRC)], an appeal can be made to the PRC.
- Community concerns may be expressed in a written letter to the PRC. VPA staff will summarize the public concern in their project report to the PRC and attach any correspondence received from the public to that report. The PRC will consider both the staff recommendation as well as all comments received from the public when deciding whether to approve a VPA Project Permit application.
- Community members may also request to meet with the Chair of the PRC prior to the PRC’s consideration of the Project Permit application. This meeting will enable members of the community to communicate their concerns directly with the approving body and propose a resolution to the issue that would satisfy those concerns. Following this meeting, the Chair will instruct VPA staff how to proceed with the application and advise whether the proponent is required to provide additional information, impact studies and/or further mitigate against off-site impacts.
- In the event the community or other stakeholder is dissatisfied with a decision of the VPA as approving authority, an appeal to the Chairperson of the Project Review Committee can be made. If a satisfactory resolution cannot be reached, the VPA may consider the use of other dispute resolution mechanisms.

APPENDIX A – Glossary

Air Quality Management Plan for Greater Vancouver (AQMP) – a plan approved by the GVRD Board in 2005. The AQMP has three primary goals: 1) to minimize the risk to public health from air pollution; 2) to improve visibility; and 3) to minimize Greater Vancouver’s contribution to global climate change. Actions relevant to the EVPL area include initiatives to reduce emissions from space heating, industrial, commercial and institutional (ICI) sources, on-road and non-road engines/equipment such as trucks, trains, cargo handling equipment, and marine vessels.

BCA – Burrardview Community Association

Burrard Environmental Review Committee (BERC) – a BIEAP sub-committee with representatives from Fisheries and Oceans Canada, Environment Canada, British Columbia Ministry of Water, Land and Air Protection and the Vancouver Port Authority. BERC reviews proposals for shoreline development and other activities in Burrard Inlet and provides the responsible authorities and the proponent with recommendations for mitigating environmental impacts.

Burrard Inlet Environmental Action Program (BIEAP) – a partnership of Environment Canada, Fisheries and Oceans Canada, Transport Canada, British Columbia Ministry of Environment, Greater Vancouver Regional District and the Vancouver Port Authority. The purpose of the BIEAP partnership is to establish a management framework to facilitate the coordination of activities intended to protect and improve the environmental quality of Burrard Inlet within the context of sustainability.

Decibel (dBA) – a measurement for sound. Sound is measured on the decibel scale and expressed in dBA, which is a logarithmic scale. The range for normal hearing is generally between 0 and 130 dBA. On the decibel scale, each 10dBA increase in the level of a given noise produces roughly a doubling in perception of its loudness.

Development – new construction or building alterations that would normally require approval by the VPA or City of Vancouver, including container storage, and any change of use on a site that may result in additional impacts to the residential community.

East Vancouver Port Lands (EVPL) – land and water under VPA jurisdiction, located in the City of Vancouver between Victoria Drive and Second Narrows Bridge, and north of the Burrardview community. Also referred to as *Port lands*. See Figures 1 and 2.

East Vancouver Port Lands (EVPL) Study Area – the Plan study area, including lands under VPA jurisdiction (the EVPL) and under City jurisdiction (portions of Burrardview). See Figures 1 and 2.

Foreshore – lands located between the ordinary or mean high water mark and the ordinary or mean low water mark.

Height Guideline – the generally permitted height of buildings and structures in the EVPL area that would be permitted unconditionally. Proposed structures and buildings are permitted above the height guideline if they meet the criteria set out in the Heights and Views section of the EVPL Plan.

L_{eq} – equivalent sound pressure level - the steady sound level that, over a specified period of time, would produce the same energy equivalence as the fluctuating sound level actually occurring. Expressed in units of dBA.

$L_{eq}(24)$ – L_{eq} averaged over a 24-hour period.

L_{dn} – similar to the $L_{eq}(24)$, except that a 10dBA penalty is applied to all noise levels measured between 10:00 pm and 7:00 am. The penalty is intended to emphasize the importance of noise that occurs at night and therefore has much greater potential to interfere with the relaxation and sleep of residents.

Liaison Group – a group formed following adoption of the EVPL Plan. The group consists of 2 members of the Burrardview Community, 1 member from the City of Vancouver, 1 member from the VPA and 1 member from CP Rail. The Group's role is to ensure the Plan directions are respected and to provide a forum to facilitate early communication on new development and operational issues that may significantly impact either the Port or the community.

The Port – See VPA.

Port lands – See East Vancouver Port Lands.

Sulphur Emission Control Area (SECA) – a designated geographical area in which ships are required to burn fuel with a low sulphur content. Examples include the Baltic Sea SECA and the proposed West Coast of North America SECA.

TEU – twenty-foot equivalent units, the standard measurement for containers. Containers or “boxes” come in different sizes – 20 feet, 40 feet and 45 feet units. A forty-foot container would equate to two TEUs.

Upland – the land above the average high tide line.

VPA – The Vancouver Port Authority, sometimes referred to as “the Port”.

Waterlot – A property that is wholly or partially covered by water.

Working Group – a group formed to assist in the preparation of the EVPL Plan. The group included representatives from the Burrardview Community, the Vancouver Port Authority and the City of Vancouver, as well as Port users and tenants. The Group's role was to develop a range of options for the EVPL Plan prior to wider public consultation.

View Impact – a partial or full blockage of a mountain or water view that occurs when a structure's height is above the specific guideline for that area.

APPENDIX B — Future Port Land Use Categories

Green (Outright) Uses

Category	Use
Marine Passenger Terminal	Ferry Terminal – Medium
	Float Plane Ancillary Use
Port Marine Services	Ship Chandlery
	Vessel Storage
	Marine Taxi
	Container Storage
	Vehicle and Equipment Storage
Transportation Services	Weighing or Inspections Station
Port-Related Commercial	Marine, Boat & Yacht Club
	Marine Fueling Installation
	Marine Education, Research
	Moorage for Boats, Fish Boats and Other Watercraft
	Marine Sporting Goods & Equipment, Boat Sales & Service and Marine-Related Sales
	Charter Boat / Sports Fishing
	Fish Auction and Sales
	Commercial Businesses serving Maritime Workforce
Port-Related Industrial	Fish Off-loading, Processing and Packaging
Maintenance, Works Yards and Utilities	Public Utilities / Installations / ROWs / Installations
	Oil Spill Cleanup and Marine Emergency Services
Port Marine-Related Administrative Use	Port Authority Use
	Coast Guard and/or Naval Operations
	Marine Surveying and Engineering Offices
	Marine / Terrestrial Habitat or Conservation
	Training Facilities
	Fire Protection, Police & Security Services and Operations

Yellow (Conditional) Uses

Category	Use
Marine Cargo Terminal	Deep Sea Terminal: Dry Bulk
	Deep Sea Terminal: Liquid Bulk
	Deep Sea Terminal: Break Bulk
	Deep Sea Terminal: Container
	Marin Cargo Terminal
Marine Passenger Terminal	Cruise Ship Terminal: Large
	Cruise Ship Terminal: Transit Berth
	Large Charter Boats (Pocket Cruises)
	Pocket Cruise
	Ferry Terminal – Large
	Ferry Terminal – Medium
	Float Plane Terminal
	Heliport
Port Marine Services	Container Repair/Storage
	Warehousing / Packaging & Distribution / Container Freight Station / Off Dock Facility / Reload Facility
	Tug and Barge Towing Operations
	Handling/Transfer of Marine Waste
	Transshipment Facility: Grain
Transportation Services	Truck Terminal
	Rail Line
	Truck or Bus Staging Lot
Port-Related Industrial	Cold Storage Plant / Facilities
	Ship Boat Building / Repair / Dry Dock: Small
	Marine Equipment Repair, Service and Manufacture
	Manufacturing and Processing of Products and Goods: Grain Terminal
Maintenance, Works Yard and Utilities	Works Yard

Red (Prohibited) Uses

Category	Use
Port-Related Industrial	Manufacturing and Processing of Products and Goods: Processing of Forest Products
	Manufacturing and Processing of Products and Goods: Pulp and Paper Manufacturing
	Manufacturing and Processing of Products and Goods: Chemical Manufacturing
	Manufacturing and Processing of Products and Goods: Asphalt, Tar and Tar Products
	Manufacturing and Processing of Products and Goods: Cement, Lime, Gypsum, Plaster of Paris Batch Plants
	Manufacturing and Processing of Products and Goods: Petroleum Refining, Manufacturing and Processing
	Manufacturing and Processing of Products and Goods: Animal Rendering
	Manufacturing and Processing of Products and Goods: Concrete Batch Plant (Note that the LaFarge application may proceed as a “grand-fathered” use if current court proceedings rule in their favour)
	Ship Boat Building / Repair / Dry Dock: Large

APPENDIX C — Land Use Definitions

Marine Passenger Terminal means and includes all of the following uses:

Cruise Ship Terminal **Y**

Purpose built facility to accommodate passenger arrivals/departures and customs for home-port functions. The terminal requires various grades to separate passengers from ship chandling services. Example: Canada Place or Ballantyne cruise terminals.

Cruise Ship Terminal Transit Berth **Y**

Basic facility for cruise ship to dock at and passengers to disembark on day trips. With the exception of the dock, minimal infrastructure required. Example: Victoria and Nanaimo cruise ship terminals.

Ferry Terminal (Small) **G**

Passenger only ferries that require limited amount of infrastructure. Typically a dock, waiting area and a small office. Example: The former Harbourlynx Nanaimo terminal, or the False Creek Aqua Bus drop off points.

Ferry Terminal (Medium) **Y**

Passenger and vehicle terminal for a single ferry route, with a lower capacity vessel. Typically includes a smaller parking area with limited facilities. Example: BC Ferries Comox, Crofton, Bowen Island ferry terminals.

Ferry Terminal (Large) **Y**

Large passenger and vehicle terminals for coastal ferry service. Extensive parking area, passenger drop-off, short term parking, waiting room, café, ramps and lighting. Example: BC Ferries Horseshoe Bay or Tsawwassen terminals.

Float Plane Terminal (Small) **Y**

Small float plane terminal, with one dock, possibility of an office, limited number of flights a day (less than 10). Example: Ganges dock on Salt Spring Island.

Float Plane Terminal (Large) **Y**

Large float plane terminal for regular scheduled services (more than 10 flights a day). Requires waiting room, office, parking, several docks. Example: Victoria, Nanaimo and Coal Harbour float plane bases.

Heliport (Small) **Y**

Helipad for unscheduled service (Less than 10 flights a day). Facilities include a helipad and parking. An office or waiting room would be optional.

Heliport (Large) Y

Terminal for regularly scheduled helicopter departures and arrivals, as well as charter flights (more than 10 flights a day). Facilities include offices, waiting room and parking. Example: Vancouver Heliport

Pocket Cruise Terminal Y

Wharf where pocket cruise ships and large charter boats can dock. May include a small terminal building and parking for a limited number of buses and delivery trucks. Charter boats tend to operate at night. Example: Bayshore Marina

Marine Cargo Terminal means and includes all of the following uses:

Deep Sea Terminal: Dry bulk Y

Includes coal, grain, potash, sulphur, metal ores and concentrates. Product is delivered to terminal by train and temporarily stored on site prior to being loaded onto the ship. Products can be stored in silos (grain), sheds (potash) and out open to the elements (coal and sulphur). Example: Cascadia and Neptune Terminals

Deep Sea Terminal: Liquid bulk Y

Includes petroleum, petrochemicals and edible oils. Products arrive by pipeline (petroleum) or rail car (edible oils and petrochemicals). Goods are stored in large tanks prior to being loaded onto ships. Example: Petro Canada and Pacific Coast Terminals

Deep Sea Terminal: Break bulk Y

Includes forest products (lumber, pulp & wood panels) and steel. The majority of products arrive by rail car and are stored in warehouses prior to being loaded onto the ship: Examples: Lynnterm and Ballantyne

Deep Sea Terminal: Container Y

Terminal for the transshipment of containerized cargo. Containers arrive by rail and truck and are sorted in a container yard prior to being loaded onto ships. Examples: Vanterm and Centerm

Marine Cargo Terminal Y

Terminal where a broad range of goods and equipment are loaded/unloaded for transport to coastal communities. Goods are delivered to the terminal by truck and are then transferred onto coastal vessels and barges for short sea shipping.

Maintenance, Works Yards & Utilities means and includes all of the following uses:

Public Utilities/Installations/ROWs **G**

Typically includes port land leased to public utilities for sewer lines, hydro lines, cell phone masts etc.

Oil Spill Cleanup and Marine Emergency Services **G**

Facility where supplies and equipment for oil spills and marine emergencies can be stored and easily accessible. Supplies may be stored in a shed or small warehouse. May include a ramp to the foreshore for easy access to the waterfront. Boats may be moored at nearby dock facility. Example: Burrard Clean barge at the former Prince Rupert Fishermen's Co-op.

Works Yard **Y**

Facility where public works vehicles, goods and supplies are stored. Typically includes a garage for maintenance and repair of vehicles. Large lot is used to store bulk goods such as sand and gravel. Often a waste transfer facility is also included in this type of operation. May be located on the water to allow barged gravel and sand to be delivered cost effectively. Example: Former City of Vancouver Works Yard on False Creek

Port Marine Services means and includes all of the following uses:

Ship Chandlery **G**

A business that specializes in supplying supplies such as food and ship accessories to vessels (cruise ships, freighters). May require a warehouse, foreshore access, office and parking.

Vessel Storage **G**

A dock or upland parcel located near the foreshore where more than ships can be stored. Facility may require a small office for security personnel. Example: Pier 94 North Vancouver where fast ferries are temporarily stored, could also be a facility where pleasure craft are stored. Vessel storage is often an accessory use ie it is adjacent to a shipyard but can be a use in its own right.

Marine Taxi **G**

Foreshore facility, including docks and wharf for mooring of marine taxis. Requires parking area for employees and passengers. Example: Tymac Launch Services and Cates Towing

Container Storage **G**

Off-dock facility where empty containers are stored. Example: Terminal Dock

Container Repair **Y**

Off-dock facility where empty containers are stored, repaired and serviced. Example: Marco Marine Containers.

Vehicle and Equipment Storage **G**

Facility where port-related vehicles and equipment are stored. Permanent facilities would likely require a storage shed.

Warehousing/Packaging & Distribution/Container Freight Station/Off Dock Facility/Reload Facility **Y**

Warehousing facility where cargo is loaded (stuffed) or unloaded to/from containers. Containers can arrive by either rail or truck and are then transferred to a deep sea terminal or inter-modal yard for transshipment.

Tug and Barge Towing Operations **Y**

Upland and foreshore facility where cargo is transferred from the upland to a barge via a barge ramp, and vice versa. Includes a dock for the moorage of the barge, an office and a parking lot for employees and delivery trucks. Example: Smit Marine

Handling/Transfer of Marine Waste **Y**

Facility where waste products from marine vessels are stored, sorted and transferred to landfills or recycling depots

Transshipment Facility: Grain **Y**

An operation that transfers grain from rail cars to containers. Grain is delivered to the facility by rail and transferred into a silo for temporary storage. Empty containers are delivered to the site, a liner is inserted into the container and grain is deposited. The container is then transferred by truck to a container terminal. Facility requires rail spur, office, grain silo, and container storage yard. Example: Columbia or Coastal Containers.

Transportation Services means and includes all of the following uses:

Weighing or Inspections Station **G**

A Provincial Government facility located on major truck routes, where trucks are weighed and inspections are undertaken to determine roadworthiness. Could be an electronic system such as “weigh in motion”.

Truck Terminal **Y**

Facility where cargo carried by trucks is unloaded/loaded prior to transshipment. Typically requires a warehouse for the storage of goods.

Rail Line **Y**

A single or double rail line that carries freight or passenger traffic

Truck or Bus Staging Area **Y**

Designated areas, located off main roads, where trucks or buses wait before entering a Port terminal. Typically used during the day to avoid congestion on roads around terminal

facilities.

Rail Yard **Y**

A series of rail tracks that are used to temporarily store rail cars. Rail yards are used to sort cars and combine cars to create a full train. Can take the form of various shapes and lengths.

Port-Related Commercial means and includes all of the following uses:

Marine, Boat & Yacht club **G**

Facility where pleasure craft are docked. Can include both permanent and temporary moorage for sail boats and coastal pleasure craft. Upland facilities usually include an office and or restaurant.

Marine Fueling Installation **G**

A floating facility where pleasure craft and commercial marine craft can buy fuel. Typically includes a store. Example: Chevron in Coal Harbour

Marine Education, Research **G**

Marine research facilities that require a direct access to the foreshore. Includes laboratories, classrooms and offices. Example: DFO Research Station - Nanaimo or Vancouver Aquarium Wildlife Rescue Centre at Main Street Dock

Moorage for Boat, Fish Boat and Other Watercraft **G**

Facility that provides moorage on a day-to-day basis. Includes a dock, floats and an office. Majority of facility located on foreshore, may include an upland component for parking. Example: Main Street Dock

Marine Sporting Goods & Equipment, Boat Sales & Service, Marine-Related Sales **G**

Retail store that sells marine sporting goods and equipment such as fishing rods, life jackets, kayaks etc. Typically located in a waterfront setting.

Charter Boat/Sport Fishing **G**

Charter tour boats and sport fishing charters that provide services from a marina. Typically do not require an on site office or additional facilities. Example: Bayshore Marina

Fish Auction and Sales **G**

Facility where fish are unloaded from vessels and auctioned or sold. May require a dock and a warehouse for fish to be temporarily stored. Once fish are sold, they are loaded onto trucks and taken to their final destination.

Commercial Business Serving Maritime Workforce **G**

Services directed towards seafarers and the maritime workforce. Example: restaurant or cafe.

Port-Related Industrial means and includes all of the following uses:

Fish Off-loading, Processing & Packaging **G**

Facility where fish are processed, packaged and distributed. Typically includes a dock for fishing boats to unload their cargo and a large warehouse structure. Requires warehousing for cold storage and shipment of fish products and employee parking. Example: JS Macmillan Fisheries.

Cold Storage Plant/Facilities **Y**

Facility where perishable products are stored prior to shipping. Some processing can also take place in these facilities. Requires a warehouse style building. Example: Versacold

Ship Boat Building/ Repair/Dry Dock: Small **Y**

Facility where smaller vessels are repaired and or built. Includes smaller passenger only ferries, large sail boats and fishing boats. Requires a prefabrication shop and an outdoor assembly area.

Ship Boat Building/Repair/Dry Dock: Large **R**

Facility where vessels are repaired and /or built. Typically centered around larger vessels such as ferries, cruise ships and freighters. Requires a fabrication shop, dry dock, wharfage and outdoor assembly areas. Example: Vancouver Dry Dock.

Marine Equipment Repair, Service and Manufacturing **Y**

Facility where marine equipment such as engines are repaired. Typically requires a fabrication shop/ small warehouse as a structure. May require water access to service boats directly on the foreshore.

Manufacturing & Processing of Products & Goods: Grain Terminal **Y**

Port facility where grain is transferred from grain cars into storage silos. It is then processed and cleaned prior to being loaded onto bulk grain containers. Facility requires a rail yard, deep sea access for ships, and storage areas for grain. Example: Cascadia Terminal.

Manufacturing & Processing of Products & Goods: Processing of Forest Products **R**

Typically includes sawmills and planer mills. Facilities include a log storage area, a mill, an office, maintenance building and warehouse.

Manufacturing & Processing of Products & Goods: Pulp & Paper Manufacturing **R**

Large heavy industry site where wood chips are turned into fibre and transformed into kraft and newsprint. Requires a large site, with multiple buildings, chip storage, warehouses, kraft and paper mills, maintenance facility. Example: Crofton Pulp and Paper Mill

Manufacturing & Processing of Products & Goods: Chemical Manufacturing
R

Facility where chemicals are manufactured into a range of products. Typically includes a rail yard, tank farm and manufacturing facility.

Manufacturing & Processing of Products & Goods: Asphalt, Tar and Tar Products
R

An industrial plant that produces asphalt for road construction. May also produce tar for roofing and tar-related products. Requires a silo to store aggregate and storage tanks for tar. Batch plant required to mix the aggregate and tar together.

Manufacturing & Processing of Products & Goods: Cement, Lime, Gypsum, Plaster of Paris Batch Plants
R

An industrial complex that produces cement. Requires limestone to be ground down to dust. The limestone is mixed with additives and baked in a kiln. Crushed gypsum is then added to the mix and the final product is stored in a silo. The cement is then transferred to trucks, or packaged on site and stored in a warehouse. Example: Lehigh Northwest Cement (Delta).

Manufacturing & Processing of Products & Goods: Petroleum Refining, Manufacturing & Processing
R

Facility where crude oil is processed into petroleum and various by-products. Requires a large tank farm and processing facilities. Typically requires a deep sea berth for ships. Example: Chevron (Burnaby).

Manufacturing & Processing of Products & Goods: Animal Rendering
R

A facility where inedible products from the animal processing industry are recycled into protein meals, fats and oils. Requires a rail yard, storage tanks, processing building, office and warehouse. Example: West Coast Reduction.

Manufacturing & Processing of Products & Goods: Concrete Batch Plant
R

Facility that makes concrete by mixing cement with aggregate and water. Includes a concrete mixing facility with silos, aggregate storage bins, a barge berthing and unloading facility, materials handling conveyors and an office and maintenance building. Example: Ocean Cement, Granville Island.

Port Marine-Related Administrative Use means and includes all of the following uses:

Port Authority Use 

Land used by the Port Authority to support its operations. Can include maintenance facilities, storage areas and docks.

Coast Guard and/or Navel Operations 

Facilities used by the Coast Guard or Canadian Forces for their operations. Typically includes a dock, offices and warehousing for equipment. Example: berthing facilities at Main Street Dock.

Marine Surveying and Engineering Offices 

Offices for marine surveying and engineering that require close proximity to the foreshore for the docking of boats and transfer of equipment.

Marine/Terrestrial Habitat or Conservation 

Specific areas within the Port set aside for wildlife habitat or for ecological purposes. May include an interpretation center. Example: Maplewood Conservation Area (District of North Vancouver).

Training Facilities 

Facilities where port employees can receive training on specialized equipment such as cranes, forklifts, gantries, trucks. Requires a training center and open space to accommodate the movement of equipment. Example: BCMEA Training Centre at Lynnterm.

Fire Protection, Police and Security Services & Operations 

Office and storage facility where police, fire department and/or custom officers monitor activity on the waterfront. Typically includes an office, storage area for specialized equipment (i.e. container scanners) and parking. May also include a marine component with dock and boat shed.

APPENDIX D — Technical Appendices

i. Technical Background to understanding Noise

Noise is measured in decibels (dBA), which is a compressed or “logarithmic” scale (i.e. each 10 dBA increase represents a doubling in perceived loudness). 0 dBA represents the lowest noise that a healthy young person can hear, while painful sensations in the ear occur at 120 to 130 dBA. Table 1 compares common noises to their associated decibel values.

There are a few general rules for understanding noise interaction and cumulative impact. Most urban environments have a background noise level (urban hum) of approximately 45 dBA, which can mask lesser noises. Since the decibel scale is logarithmic, cumulative impacts of noise cannot be calculated arithmetically; in general, two noises of equal dBA would raise the overall noise level by 3 dBA, which happens to be the smallest change perceptible to the human ear. Tonality of sound can increase the irritation to the noise receiver. For example, most people find high-pitched sounds (e.g. leaf blower) more annoying than low-pitched sounds. However, low pitched noises can cause vibrations over extended distances, and are more difficult to mitigate than high pitched noise.

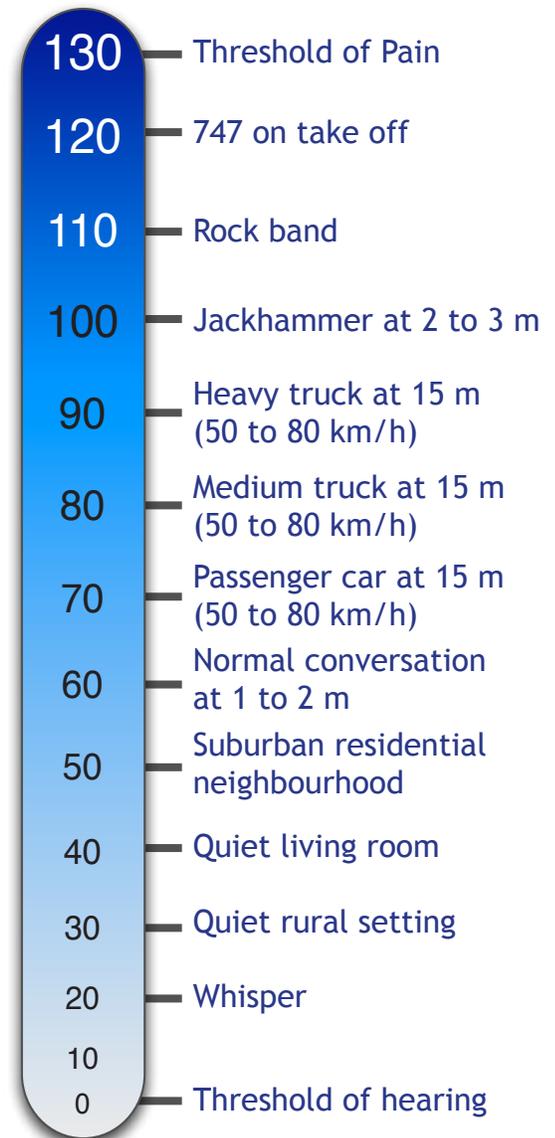
The Equivalent Sound Level, $L_{eq}(24)$, is a single value of sound measurement that averages the fluctuating noise levels occurring over a 24-hour period. The $L_{eq}(24)$ has been found to correlate well with community reactions to on-going noise. To better represent the increased impact of night time noise, when quiet is more imperative for sleep, a 10 dBA penalty is applied to all noise levels measured between 22:00 and 07:00 hours - this corrected noise descriptor is called Day-Night Sound Level (L_{dn}).

Several organizations publish guidelines for residential area noise impacts, including Health Canada, CMHC, and the US EPA. CMHC Guidelines identify an $L_{eq}(24)$ of 55 Dba as the threshold for the potential onset of community noise impacts. The threshold for sleep disturbance from fairly brief intermittent sounds is about 60 Dba.

The City Noise Control By-law Number 6555 contains specific noise limits depending on the zones in which the noise is created and received. The industrial waterfront within the EVPL study area is considered to be an intermediate zone. If the City bylaw applied to the EVPL area, the noise limits would be as follows:

- Continuous sounds—60 dBA daytime, 50 dBA nighttime
- Non continuous sounds—75 dBA daytime, 70 dBA nighttime.

Figure 11: DBA Chart



Source: SoundSmart: A residents' guide to sound living in the City of Vancouver, City of Vancouver

For more information on noise and study findings, a copy of the Wakefield Acoustics 'East Vancouver Port Lands Community Noise Study' is available online at vancouver.ca/evpl.

ii. Development Approval Process: VPA Jurisdiction

Most new developments on Port property currently require a VPA Project Permit. Projects that do not significantly impact the site (such as interior alterations, maintenance and repair of existing structures and equipment, and new construction of ancillary structures less than 10 m² in area) are exempted from this requirement. All developments on Port property require a review by Environmental Programs, regardless of whether a VPA Project Permit is required. For projects requiring a permit, VPA staff from relevant departments such as Planning and Development, Environmental Programs, Engineering, Operations and Harbour Master, and Real Estate review the application and work with the applicant to resolve any issues. Once all issues are resolved, the application is forwarded to the VPA Project Review Committee (PRC) comprised of senior staff for their consideration and approval.

If a development proposal has the potential to impact the marine environment in the Burrard Inlet, the application will be forwarded to the Burrard Environmental Review Committee (BERC) for their review. BERC is comprised of representatives from Environment Canada, Fisheries and Oceans Canada (DFO), Transport Canada, British Columbia Ministry of Environment, and the Vancouver Port Authority. Some proposals may require DFO authorization prior to VPA's issuance of a Project Permit.

VPA Project Permit applications are processed under one of two different levels of review: Standard or Public. Generally, Standard Review projects do not require public consultation though they may require consultation with other external stakeholders and/or public notification. Conversely, Public Review projects do require public consultation with members of the affected community. The Vancouver Port Authority (VPA) determines the type of review based on the project's potential off-site impacts and level of community interest that it is likely to generate. The level of review may elevate due to:

- Project size and scope;
- Traffic impacts (rail, truck, vessel);
- Throughput increase;
- Structure size & height;
- View impact;
- Environmental impacts (air & water quality, noise, light);
- Construction duration and impact; and
- Community impact and interest.

Major development proposals for Port lands are submitted to the City of Vancouver. The development proposal may be revised or conditions added to the VPA Project Permit based on the outcome of this review.

iii. Development Approval Process: City Jurisdiction

The City's approval process includes a number of review and public consultation steps that vary depending on the project's complexity and level of controversy. The development approval process for developments on land under City jurisdiction is well defined and depends on whether the proposed project is an "outright" or "conditional" development. Outright development proposals undergo technical reviews for compliance with regulations only, and are approved if they meet the requirements of the Zoning and Development By-law. Because the City has no authority to request changes to outright developments that comply with zoning regulations, no public consultation occurs.

Conditional developments generally have greater impacts and typically require public notification and consultation to solicit public input on issues and determine possible changes that may be necessary to address issues. As noted, the City has a standardized process for reviewing applications and notifying the public. Hence, any advice from the Liaison Group on public consultation must respect the standard approach used throughout the City.